



ENVIRONMENTAL ASSESSMENT BOARD

VOLUME:

358

DATE:

Wednesday, February 26, 1992

BEFORE:

A. KOVEN

Chairman

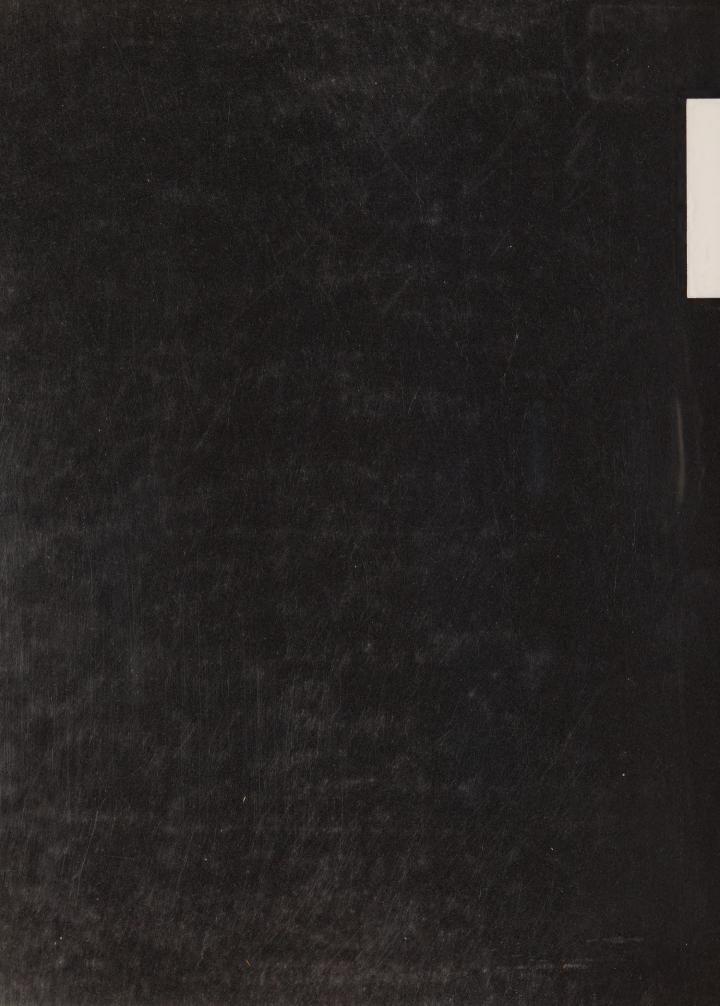
E. MARTEL

Member

FOR HEARING UPDATES CALL (COLLECT CALLS ACCEPTED) (416)963-1249



(416) 482-3277



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HEARING ON THE PROPOSAL BY THE MINISTRY OF NATURAL RESOURCES FOR A CLASS ENVIRONMENTAL ASSESSMENT FOR TIMBER MANAGEMENT ON CROWN LANDS IN ONTARIO

IN THE MATTER of the Environmental Assessment Act, R.S.O. 1980, c.140;

- and -

IN THE MATTER of the Class Environmental Assessment for Timber Management on Crown Lands in Ontario;

- and -

IN THE MATTER of a Notice by The Honourable Jim Bradley, Minister of the Environment, requiring the Environmental Assessment Board to hold a hearing with respect to a Class Environmental Assessment (No. NR-AA-30) of an undertaking by the Ministry of Natural Resources for the activity of Timber Management on Crown Lands in Ontario.

Hearing held at the offices of the Ontario Highway Transport Board, Britannica Building, 151 Bloor Street West, 10th Floor, Toronto, Ontario, on Wednesday, February 26th, 1992, commencing at 9:00 a.m.

VOLUME 358

BEFORE:

MRS. ANNE KOVEN MR. ELIE MARTEL

Chairman Member



APPEARANCES

MS.	V. FREIDIN, Q.C. C. BLASTORAH K. MURPHY)	MINISTRY OF NATURAL RESOURCES
MS.	B. CAMPBELL J. SEABORN N. GILLESPIE)	MINISTRY OF ENVIRONMENT
MR. MS. MR.	R. TUER, Q.C. R. COSMAN E. CRONK P.R. CASSIDY D. HUNT R. BERAM)	ONTARIO FOREST INDUSTRY ASSOCIATION and ONTARIO LUMBER MANUFACTURERS' ASSOCIATION
MR.	R. BERAM		ENVIRONMENTAL ASSESSMENT BOARD
DR.	J.E. HANNA T. QUINNEY D. O'LEARY		ONTARIO FEDERATION OF ANGLERS & HUNTERS
	D. HUNTER M. BAEDER)	NISHNAWBE-ASKI NATION and WINDIGO TRIBAL COUNCIL
	M. SWENARCHUK R. LINDGREN)	FORESTS FOR TOMORROW
	D. COLBORNE G. KAKEWAY)	GRAND COUNCIL TREATY #3
	J. IRWIN		ONTARIO METIS & ABORIGINAL ASSOCIATION
MS.	M. HALL		KIMBERLY-CLARK OF CANADA LIMITED and SPRUCE FALLS POWER & PAPER COMPANY

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APPEARANCES (Cont'd):

MR.	R. COTTON		BOISE CASCADE OF CANADA LTD.
	Y. GERVAIS R. BARNES		ONTARIO TRAPPERS ASSOCIATION
	L. GREENSPOON B. LLOYD)	NORTHWATCH
	J.W. ERICKSON, Q. B. BABCOCK		RED LAKE-EAR FALLS JOINT MUNICIPAL COMMITTEE
	D. SCOTT J.S. TAYLOR).	NORTHWESTERN ONTARIO ASSOCIATED CHAMBERS OF COMMERCE
MR.	J.W. HARBELL		GREAT LAKES FOREST
MR.	S.M. MAKUCH		CANADIAN PACIFIC FOREST PRODUCTS LTD.
	D. CURTIS J. EBBS)	ONTARIO PROFESSIONAL FORESTERS ASSOCIATION
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MR.	H. GRAHAM		CANADIAN INSTITUTE OF FORESTRY (CENTRAL ONTARIO SECTION)
MR.	G.J. KINLIN		DEPARTMENT OF JUSTICE
MR.	S.J. STEPINAC		MINISTRY OF NORTHERN DEVELOPMENT & MINES
MR.	M. COATES		ONTARIO FORESTRY ASSOCIATION
MR.	P. ODORIZZI		BEARDMORE-LAKE NIPIGON WATCHDOG SOCIETY

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APPEARANCES (Cont'd):

MR. R.L. AXFORD CANADIAN ASSOCIATION OF

SINGLE INDUSTRY TOWNS

MR. M.O. EDWARDS FORT FRANCES CHAMBER OF

COMMERCE

MR. P.D. McCUTCHEON GEORGE NIXON

MR. C. BRUNETTA NORTHWESTERN ONTARIO

TOURISM ASSOCIATION



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Witness:	Page No.
PETER VICTOR,	
ATIF KUBURSI; Resumed.	62346
Continued Cross-Examination by Mr. Freidin	62346



INDEX OF EXHIBITS

Exhibit No.	Description	Page No.
2127	Excerpt from book entitled: Total and Non-Use Values, authored by Allan Randall comprising Chapter 10.	62504



1	Upon commencing at 9:00 a.m.
2	MADAM CHAIR: Good morning. Please be
3	seated.
4	Good morning, Mr. Freidin.
5	MR. FREIDIN: Good morning. Shall I
6	start?
7	MADAM CHAIR: Go ahead.
9	PETER VICTOR, ATIF KUBURSI; Resumed.
0	CROSS-EXAMINATION BY MR. FREIDIN (Cont'd):
1	Q. Dr. Victor, in looking through your
2	CV you were at one time a principal of VHB Consultants?
3	DR. VICTOR: A. Correct, yes.
4	Q. What does VHB stand for?
5	A. Well, it doesn't stand for anything.
6	Q. Does it represent the Victor Hanna
7	and somebody else by the name of B?
8	A. The naming of a company is harder
9	than the naming of a child, to be honest with you, you
0	can't go to a book, and we thought of various names and
1	one of the ways of coming up with a name was to
2	identify the letters of the three original principals,
3	yes.
4	Q. Okay. Coming to the point, I
5	understand that you were Mr. Hanna's business partner?

1		A. That's correct.
2		Q. For what length of time?
3		A. For '87 to '91.
4		Q. All right. And the Mr. Hanna we're
5	talking about	is Ed Hanna who is sitting here?
6		A. Yes, correct.
7		Q. Did you have any role in the
8	preparation of	the Coalition's case, did you work with
9	Mr. Hanna, alo	ong with Mr. Hanna when he was advising
. 0	and preparing	the case
.1		A. No.
. 2		Qon behalf of the Coalition?
.3		A. No.
4		Q. Did you draft any of the terms and
15	conditions?	
16		A. No.
L7		Q. I noted when Mr. O'Leary asked you at
18	the outset ab	out the role that the terms and conditions
19	played or did	not play in terms of your evidence, he
20	asked you whe	ther you adopted the rationale as part of
21	your evidence	, you both said yes.
22		He didn't ask you whether you adopted the
23	specific word	ing of the terms and conditions as your
24	evidence, he	didn't ask you that.
25		Can I assume that you adopt the rationals

1 but that you do not and are not recommending to the 2 Board that they adopt necessarily the exact wording of 3 the terms and conditions that the particular rationales 4 support? 5 A. No, that would be a mistaken 6 assumption. Speaking for myself now, I adopt the 7 specific wording of the terms and conditions that are 8 listed in the witness statement. 9 O. And Dr. Kubursi? 10 DR. KUBURSI: A. I would say the same, 11 particularly in reference to the exact items that we 12 have in the witness statement. 13 Q. I'm sorry. 14 We have exactly the points on the terms of reference that we referred to. Can I refer 15 you back to my witness statement. 16 O. I know the terms and conditions that 17 are referred to there, Dr. Kubursi. 18 Α. Sure. 19 Q. Do you have your overheads, Dr. 20 21 Victor? MADAM CHAIR: What is the exhibit number, 22 Mr. Freidin? 23 MR. FREIDIN: That would be 2113. 24 MADAM CHAIR: Thank you. 25

MR. FREIDIN: Q. And overhead No. 27--1 DR. VICTOR: A. Yes. 2 Q. --is entitled: Practical 3 Implications of Incorporating Non-Timber Values in 4 Timber Management. 5 A. Yes. 6 This is a reproduction I believe of 0. 7 page 37 of the witness statement but with one addition; 8 is that correct? 9 Yes, that's correct. Α. 10 And the one addition is the addition 11 of paragraph No. 4 which refers to coordination of 12 routine data collections. 13 14 A. Yes. During your evidence in relation to 15 16 this particular overhead in reference to Item No. 5 that the proponent should initiate a research program 17 in Ontario to develop generic estimates of non-timber 18 19 values, you made the comment that you attach great significance to that particular matter. 20 21 Could you just tell me why you think it's necessary that there be such a research project to 22 develop generic estimates, and perhaps before you do 23 that, you can explain what a generic estimate is, just 24 25 give some examples of that?

1	A. Yes, certainly. A generic estimate
2	is an estimate of a value that can be used in a wide
3	range of circumstances and provides a useful starting
4	point for specific applications. Now, I believe
5	that
6	Q. Can you give me an example. That's
7	sort of a theoretical explanation. Can you give me
8	some examples of some of the generic kind of
9	relationships that you had in mind when you said that
. 0	Ontario should have a research program to develop such?
.1	A. Yes. One of the items that was
.2	entered as an exhibit, the RPA Estimates, I could find
.3	the exhibit number for you if you want, but it was
. 4	Q. No, that's okay.
.5	MADAM CHAIR: Exhibit 2115.
.6	DR. VICTOR: That's right. You'll find
.7	in that document estimates of values for specific
.8	activities taking place in specific regions, and these
.9	are generic estimates.
20	MR. FREIDIN: Q. All right. And where
21	do I find those?
22	DR. VICTOR: A. You'll find these
23	Q. Page 25.
24	ATable 6A, Table 6.
25	Q. All right. So the generic

1	relationships then that you have there in Table 6, on
2	page 25 and the tables following are relationships in
3	relation to, for instance, on page 25 hunting, fishing
4	non-consumptive wildlife use?
5	A. Yes.
6	Q. And then they go on through those
7	charts. Now, what is the relationship you're saying
8	would have to be developed, the relationship between
9	hunting and what?
. 0	A. These values show, for example, that
.1	in region 1 I'm looking now at the top line of Table 6
. 2	on page 25.
.3	Q. Yes.
4	A. Region 1, the value of an activity
L5	day actually, I'll come over to the righthand column
16	where it says WFUD, a wildlife and fisher user day. In
L7	that region the generic value they're suggesting we use
18	is \$87.36 for the year 1989 rising to \$96.97 in the
19	year 2040 and these values have been estimated based
20	upon a wide a ranging review of the literature.
21	Q. And so that those particular values
22	would then be calculated for each of the regions based
23	on information which was available?
24	N Voc

25

Q. Did they also obtain information, was

1 it a situation where some of these numbers were 2 generated not based on existing information but where 3 they had to go out and develop information to develop 4 the generic relationship? 5 A. Well, not for this particular document I don't believe so, no, it was based upon 6 7 previous work that was designed to assemble these kinds 8 of estimates. 9 Q. And is the previous work which was 10 relied upon, is it referred to in this document or do 11 we have any idea? 12 Α. Yes. What was relied upon? 13 0. Yes. One of the main sources is 14 A. listed in the literature cited on page 31. 15 0. Yes. 16 The last item, Walsh, Johnson and Α. 17 18 McKean. Yes. Q. 19 It has been entered as an exhibit. 20 Α. Yes. Q. 21 And some of the other items there I A. 22 believe I either referred to - I don't know that we 23 entered as an exhibit - but we referred to in my 24 evidence. 25

1	Q. All right. And the Walsh article is
2	Exhibit 2116 which is the document from Colorado State
3	University?
4	A. Yes.
5	Q. And that is a document is this the
6	document that looked at 285 or some such number of
7	reports or studies?
8	A. Of estimates, yes.
9	Q. Now, why is it important that these
10	sorts of generic estimates be developed, as you suggest
11	in your evidence, through a research program to develop
12	estimates of non-timber values that can be easily used?
1.3	Like, why do it in Ontario? I don't
14	understand why you're making that suggestion and you
15	attach such, you say, great significance to that
16	particular one.
17	A. The value to be attached to specific
18	activities can depend upon location and local
19	circumstances. By local, I'm talking about that car
20	still be a fairly large region, and so whilst the
21	values that have been generated for use in timber
22	management planning in the United States are certainly
23	better than nothing, I think it would be very helpful
24	to have a deliberate look at the Ontario situation and

begin to develop similar types of generic estimates for

25

1	use here.
2	Secondly, I would like to say that the
3	reason that I attach importance to it is because there
4	is so much going on in this area.
5	Q. In this area, being in the area of
6	economic valuation?
7	A. In the area of economic valuation.
8	Q. Yes.
9	A. That with a modest program in Ontario
0	we would all become much better versed in these issues
1	and knowledgeable about them.
2	Q. Right. And I understand that you
3	that the generic estimates would once you develop
4	these generic estimates, the idea is that you would
5	then use them in timber management planning?
6	A. Yes.
7	Q. Now, are you aware, Dr. Victor, of
8	the forest values program which is underway as part of
9	the Canadian Forestry program in the Ministry?
0	A. No, not under that name, no.
1	Q. Are you aware of any work being done
2	as part of that initiative which is addressing the
3	issue of doing economic valuation of various values in
4	the province?

25

The only reference to work of that

1	sort that I've seen is contained in the draft terms and
2	conditions presented by your ministry last year which
3	referred to a plan, \$2,000 research program looking at
4	socio-economic issues.
5	Q. I'm sorry, can you repeat that, what
6	terms and conditions?
7	A. I'm referring to draft terms and
8	conditions I'm sorry, I don't have an exhibit number
9	written on here, but I will read the I will see if I
10	can come up with the number. Draft terms and
11	conditions submitted by Ministry of Natural Resources
12	August 3rd, 1990 summary report.
13	Q. Okay, that's the predecessor, there's
14	a more recent one. But without the exhibit number,
15	what are you referring to?
16	A. I'm referring to a paragraph on page
17	ll which says:
18	"MNR is committed to undertake an
19	intensive review of the socio-economic
20	analysis tools which are available and
21	which would assist in the analysis of
22	socio-economic issues relevant to timber
23	management planning in Ontario."
24	Now, I don't know if that's the same
25	piece of work you're asking me now to comment on or to

- say whether I've heard about.
- Q. So that is the only information then
- 3 that you have regarding what's being done within the
- 4 Ministry of Natural Resources in terms of the area of
- 5 economic valuation?
- A. Yes, though this of course is a
- 7 proposal, not a statement of ongoing work.
- Q. Now, as I understand your evidence,
- 9 and I think you just repeated it, that if we in Ontario
- 10 had nothing else other than the values set out in the
- 11 Walsh document, Exhibit 2116, that that would be better
- than using no values at all, at least that is what you
- told me this morning, as I understand it.
- A. Yes, but I wouldn't confine my
- 15 comment to just the values that are in the Walsh study.
- 16 We do have a literature of hundreds of estimates and it
- may be that specific estimates drawn from that
- 18 literature might be better than a generic value in the
- 19 Walsh study and, for example, the study that I've
- 20 referred to that was done for Haliburton/Muskoka
- 21 provides Ontario estimates of values that are relevant
- 22 to timber management planning.
- Q. All right. And that study dealt with
- a particular value; did it, it didn't deal with all the
- 25 sorts of values which are listed in the RPA document,

1	it only dealt with one or maybe a couple of them?
2	A. Recreational fishing, yes, sport
3	fishing.
4	Q. Sport fishing. And I understood
5	you there was a series of I understood you to
6	have said well, your counsel asked you about how the
7	results of that Muskoka study which was dealing with
8	the one value compared to some of the results in the
9	Walsh study, and you indicated that it fell within the
. 0	range.
.1	Now, in northern Ontario can we agree
.2	that the density of population is different than many
13	areas of the United States?
14	A. Yes, I think I would agree with that.
L5	Q. Can we agree that a great deal of the
16	area of the undertaking is an area which is unaccessed
L7	by road?
L8	A. Yes.
19	Q. Can we agree that a lot of the
20	information which would have been used for the purposes
21	of preparing Exhibit 2116 would have involved areas
22	which were accessed?
23	A. I'm sorry, is 2116 the
24	Q. Pardon me, the RPA document.
25	A. Fine.

Q. And are you aware of whether any of the estimates or the literature which was referred to in Exhibit 2116 falls into that category? A. No. Q. Can you agree with the proposition that markets served by the tourist industry varies fro one part of this province to another part? A. It would help me to answer that if I could understand what you meant by markets in the context of that question. Q. All right. Example, for instance in northwestern Ontario a good portion of the market is U based, but as you move further to the north and the	1 Would be arrest which	
were accessed and areas that weren't accessed by road, yes, both would be included. Q. Are you aware of what percentage of the areas used to prepare the RPA values involved area where the majority, or the large majority of the peopl living in the area were Native populations? A. No, I'm not aware of that percentage no. Q. And are you aware of whether any of the estimates or the literature which was referred to in Exhibit 2116 falls into that category? A. No. Q. Can you agree with the proposition that markets served by the tourist industry varies fro one part of this province to another part? A. It would help me to answer that if I could understand what you meant by markets in the context of that question. Q. All right. Example, for instance in northwestern Ontario a good portion of the market is U based, but as you move further to the north and the	Q. Would be areas which were accessed?	
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based, but as you move further to the north and the	Q. All right. Example, for instance i	n
a	northwestern Ontario a good portion of the market is	US
24 cast more of that tourism market is local residents,	based, but as you move further to the north and the	
east more of the	east more of that tourism market is local residents,	

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and maybe --

25

1	A. You're saying then that people from
2	different regions visit different parts of the
3	province. Yes, I'm aware of that.
4	Q. And sometimes you get a lot of U.S.
5	tourists in one area but very few in another?
6	A. Yes.
7	MR. FREIDIN: One moment, please.
8	Q. In relation to the RPA document,
9	Exhibit 2115, am I correct that the kind of direction
10	that is being given in that document is being given to
11	the United States Forest Service and is to be used in
12	the preparation of their I think you said, their
13	timber management plans?
14	DR. VICTOR: A. Yes, they're equivalent
15	of timber management plans.
16	Q. Right, and I understand from an
17	answer to an interrogatory that you gave that when you
18	refer to the timber management plans in the context of
19	the United States Forest Service you're talking about
20	their forest plans which are prepared for each of their
21	national forests?
22	A. I believe that's correct, yes.
23	Q. Right. And if we look at your
24	overhead No. 17 which is entitled Specific Applications
25	of the Travel Cost Method for Timber Management, am I

1	correct that all of those items, except for No. 4,
2	involve work used to generate values for the
3	preparation of forest plans in the United States?
4	A. Yes, I think that's correct.
5	Q. And No. 4, that was prepared for a
6	purpose other than the preparation of a specific forest
7	plan in the United States; is that right?
8	A. Yes, it was prepared for the purpose
9	of demonstrating the kind of methodologies that I've
10	been giving evidence on were practical and useful.
11	Q. Okay. Could you turn to Exhibit
12	2116, please, which is the Walsh document.
13	And you referred us to page 9 which is
14	Table 1, and I read just a very short part of this very
15	large document to try to get some understanding of what
16	it was about, and I just want you to see if you can
17	assist me, I'm sure you can, in relation to some
18	difficulty I had.
19	If you turn to page 10, it says in the
20	second full paragraph that:
21	"A number of problems should be
22	considered before analysts can reasonably
23	apply this information to policy
24	decisions."
25	Do you know what they are referring to

1	when they refer to policy decisions there?
2	A. Well, I presume that it refers to
3	decisions about policies.
4	Q. Can you give me any sense of the
5	sorts of policies that the authors were contemplating
6	when they made that statement?
7	A. Well, clearly the documents have been
8	produced to look at relative values of different kind
9	of activities, and so it's presumably the policy
10	decisions relating to those kind of activities:
11	Recreation, hunting, timber management.
12	Q. Give me an example of a policy
13	decision in relation to recreation that might be
14	affected by these sorts of results?
15	A. Well, I think we're talking about
16	resource allocation and using these kinds of values,
17	these kind of results in an evaluation of alternative
18	uses of the resource.
19	Q. All right. And can you give me an
20	example of what the output would be of a policy
21	decision regarding allocation of resource use; can you
22	give me an example?
23	A. I think it bears on the whole
24	question of the use of lands for supplying timber verus
25	other kind of services that can be obtained from the

l land.

Q. If there was a decision that from a
certain geographical area a decision was made that
on a certain geographical area one wanted to have or
would permit certain uses, say, recreation, tourism,
hunting, and that the land would be available for those
activities, that is the kind of decision you refer to
when you're talking about allocation of lands to
various uses?

A. Yes, that would do as an example.

Q. Now, the second problem that it says should be considered before analysts could usefully apply this information is referred to in the third paragraph on this page, and it says:

"Second, the approach does not reveal what is causing the extreme range in values, whether the variation in characteristics of users, quality of sites or research methods."

Now, am I correct that what these authors refer to as the extreme range in values are the ranges which are, in fact, described on the table on page 9?

A. Yes, that's correct.

Q. And if, in fact, one wanted to find out what was causing the variation, how would one go

about doing that?

A. Well, let me -- I'll do my best to

answer your question, but just to be clear on this,

whilst Table 9 in the furthest righthand column shows a

range, you shouldn't be misled into thinking that all

of the values that are estimated fall somehow

uniformally within that range.

which gives a range of \$3.91 to \$219.65, what this tells us is that out of all of these hundreds of estimates there's one estimate out there which came up with a very low value of \$3.91 and another estimate at the other end of range that came out at \$219.

Q. Right.

A. And we can begin to understand why that range is there because different kind of activities are being valued.

Now, if you move to the column to the left of that you see that most of the values were actually clustering around -- in that much narrower range of \$30.68 to \$37.22.

So whilst it's possible to say, yes, you've got a very high number and a very low number, at the same time there's a clustering of estimates that emerge.

T	Q. But, Dr. Victor, when I read that
2	third paragraph and it referred to the extreme range in
3	values, I assumed - and maybe incorrectly - but I
4	assumed that it wasn't referring to the first line that
5	you're referring to, but rather it was referring to an
6	extreme range in relation to each of the specific
7	values which are listed on the table.

For instance, if we take the first one, camping, picnicking and swimming and we look at the range it's 705 to 46.69 and we go down the page, go to the bottom, wilderness 8.72 to 106.26, just to pick two.

My understanding was that it was the range of the specific values which were being assessed that the authors were, in fact, making that comment — it was in relation to those that the author was making the comment.

A. Yes, but I would say -- I would make the same point, take camping picnicking and swimming, again most of the estimates cluster within that \$16.61 to \$23.67 range which is much narrower than the extreme values.

Q. All right. Are we in a situation where neither of us know what the extreme range in values -- what's being referred to, or are we just, as

- 1 I say --
- A. No, I'm just trying to clarify that
- 3 there are two aspects here.
- Q. I'm sorry.
- A. Well, I was going to say, there is a
- 6 wide range when you look across all the studies, in
- 7 particular with respect to specific activities, though
- 8 there still tends to be a clustering around some middle
- 9 values.
- 10 Q. All right. These characteristics of
- users quality of sites, if you're trying to determine a
- generic value for any one of these particular subject
- matters, are those two of the things that you would
- have to examine or consider, the characteristics of the
- users and the quality of the sites?
- A. You would like to see whether the
- characteristics of the users and the quality of the
- sites are significant factors in determining the
- 19 values.
- Q. All right.
- 21 A. Yes.
- Q. All right. And are there other sorts
- of, if I can refer to them, generic characteristics
- 24 that you would want to assess in determining generic
- 25 values?

1 These are certainly two of the main 2 ones. The authors refer to research methods because it 3 may be that differences in research methods that were 4 used to generate the estimates lead to differences in 5 the estimates. 6 You see, it's precisely --7 MADAM CHAIR: Excuse me, Dr. Victor. 8 DR. VICTOR: Yes. 9 MADAM CHAIR: Wouldn't one example be, in 10 the case of northern Ontario, that the value of a 11 fly-in remote tourist opportunity is expensive, it's 12 not a low cost sort of experience as opposed to, I 13 don't know, family holidays by car. Those would have two quite separate values, one would be at the high end 14 of a range and the other one would probably be at the 15 16 other end. DR. VICTOR: Yes, I would interpret that 17 as the quality of the site, you see, there's 18 differences in sites that you're talking about and the 19 knowledge that that would certainly make for a 20 difference in the value to be attached to them. 21 You see, it's precisely because of these 22 kind of factors that - and I'm coming back to your 23 initial question - that I strongly recommend a research 24

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program in Ontario.

1	I recognize that whilst these estimates
2	from the United States - or primarily from the United
3	States, because they did draw upon at least one
4	Canadian source we're aware of - whilst they're better
5	than nothing, we can dostill better than that in
6	Ontario with the some effort put into it.
7	MR. FREIDIN: Q. Okay. We go back then
8	to the question about generic characteristics. You
9	said that users and quality of sites were two sort of
. 0	generic characteristics that you would, in fact,
.1	consider when trying to determine generic values. Are
.2	there others that you would put into that category?
13	DR. VICTOR: A. Well, I find those
L 4	categories very broad, so there may be some other
L5	things that I haven't thought of. But I would think
16	they would fit in those two things, either the sites
1.7	are different or the users are different or both and
18	that's what we would need to know about.
19	Q. Okay.
20	MR. MARTEL: Could I ask a question.
21	When you get this wide range in one column and very
22	narrow in the other column, if this processes down, I
23	think Dr. Kubursi said to us yesterday, it's pretty
24	I think you said the same thing, we really know how to
25	do these things better than we did 20 years ago.

1	How could you get in the cluster so close
2	and in the other ones so wide ranging if you're using
3	all the same factors, or what factors in fact are being
4	changed that give such wide diversity in these?

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I mean, it doesn't seem to me that that's a system, although we heard about it yesterday being pretty sophisticated, to get that wide a range, doesn't seem to be very sophisticated.

DR. VICTOR: No. I suspect that what's happening here, if you take camping for example.

MR. MARTEL: Okay.

DR. VICTOR: As the authors have said, if you were to compares the results of two different studies you would find differences in the results for those three reasons: You may be looking at two different -- camping in two different places, so the kind of camp would be different, the kind of site would be different, the kind of people who go there would be different, and possibly two different studies would have used somewhat different methods, so that's why you would get a difference in the results.

And what these authors have done is to assemble all of the studies, or at least all of the estimates that they could find and to make them as comparable as possible, because sometimes authors will

1	say: Well, I made this assumption, another author will
2	say: Well, I made that assumption, so you can work out
3	if they made the same assumption how it would bring the
4	estimates together, or maybe make them further apart
5	and that's all been done to do this.
6	So I don't think it's too surprising to
7	find that the value of attached to camping derived from
8	different sites will give you different answers, that's
9	not a reflection, in my view, on the inadequacy of the
. 0	methodologies, it would be the other way around,
.1	frankly; if we kept coming up with exactly the same
. 2	value regardless of who was going there.
13	MR. MARTEL: Yes, but wouldn't it tend
4	to I mean, if one looks at the first one, swimming,
L 5	3.91 the range to 219.
L6	MR. FREIDIN: Which one are we looking
L7	at, Mr. Martel?
18	MR. MARTEL: The first one at the very
19	top. Oh, pardon me, that's the total. You go down the
20	
	page, you can find such significant differences that
21	page, you can find such significant differences that it's well, you look at boating, \$10.26 and 183, I
21	it's well, you look at boating, \$10.26 and 183, I

I mean, do you just go all over the

- ballpark and pick them out in terms of the camping -
 the experiences that we're talking about aren't those

 types of experiences, the Queen Mary versus a punt,

 we're talking about in a forest situation or adjacent

 to a forest area, how can it be that, the difference I

 guess is what I can't --
- DR. VICTOR: Right. You see that's -- I
 like your interpretation. I think what you would find
 is a certain commonality of experience in Ontario--

MR. MARTEL: Yes.

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DR. VICTOR: --and less variation in the values, and that would allow you to use generic values as a starting point.

In other words, if we were to develop similar estimates for Ontario, using Ontario data, we wouldn't find such a wide spread as you find when you analyse these values of overall experiences throughout the whole of the United States.

You see that's exactly why, as I say, I believe some effort should be put into developing equivalent estimates for this province.

MR. FREIDIN: Q. And can I take it from what you're saying then, Dr. Victor, that if you had these numbers here in this report, like, which have these wide ranges that Mr. Martel is talking about, it

1	would be very difficult to know where, within that
2	range, you would pick a number which you would then try
3	and use in Ontario?
4	DR. VICTOR: A. It would be difficult,
5	but let's recognize that that's exactly the difficulty
6	that was faced by the authors of Exhibit 2115, faced
7	with the very same problem. They wanted to develop
8	generic estimates for use in different regions for
9	different forest-based activities, they're looking at
10	the same wide range of estimates.
11	Q. And they took this information
12	A. And chose
13	Qbased on American studies, broke it
14	down by American national agencies into American
15	regions based on some analysis. Is that what they did?
16	A. That's right. But it still didn't
17	get rid of the problem that you're talking about, that
18	is, that there's still a range of estimates out there
19	from which they had to choose a generic value.
20	Q. Okay.
21	A. But their view was that the adoption
22	of some positive value for these non-forest services
23	I'm sorry, non-timber services would result in a more
24	even-handed comparison of non-timber values and timber

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25 values.

1	Q. Okay. You made the comment that
2	research methods may affect value.
3	A. May affect the estimates.
4	Q. Estimates of the value. The estimate
5	of value?
6	A. Yes.
7	Q. Therefore, if one was going to use a
8	specific study for Ontario but it wasn't from Ontario
9	it was in relation to a specific value, an estimate of
LO	a specific value, one would have to, in fact, assess
11	the research methods which were used before you would
12	just sort of holus bolus use the value?
L3	A. Yes. I think it's exactly the same
L 4	problem that is faced when you transfer knowledge
L 5	gained in any other area.
L6	A study may be done in Oregon that you
L7	wish to draw upon to do with how trees grow, again you
18	would want to look at the research methods. That's
L9	nothing new in transferring the results from one area
20	to another.
21	MR. FREIDIN: Can I just have one moment,
22	Madam Chair.
23	Q. Can you turn to page 12 of this
24	document please, Exhibit 2116?
25	DR. VICTOR: A. Yes.

1	Q. In the last full paragraph on the
2	page, and I think you have to read it all, it says:
3	"In the early stages of this evolving
4	process", and the evolving process
5	they're talking about here is the use of economic
6	valuation?
7	A. No.
8	Q. What is the evolving process that
9	they're referring to here?
LO	A. I believe the process they're
11	referring to here is the process of trying to assemble
12	generic estimates based upon a wide range of estimates
13	from the literature.
14	Q. Okay. They say in relation to that
15	process then that:
16	"The critical problem will be to
17	correctly specify the variables that are
1.8	expected to influence the benefit
19	estimates."
20	What do they mean by benefit estimates in
21	that context?
22	A. They mean estimates of value.
23	Q. All right. It says:
24	"For if important determinants are
25	omitted, the statistical equation will

1	not predict effects accurately, as
2	illustrated by Allen et al. (1981)."
3	It then continues and says:
4	"Thus, the early review efforts should be
5	treated with caution since by leaving
6	important variables out of the regression
7	analysis, they may attribute more or less
8	of the variation to those that are
9	included than would be the case with a
10	more complete specification, as
11	illustrated by Smith and Kaoru (1988)."
12	Now, can you explain what that means in
13	English?
14	A. Yes, I'll do my best.
15	What they're trying to do in this study
16	is to say: Look, there's a lot of estimates of what we
17	have been referring to here as non-timber values in the
18	literature, what is the best way to understand the
19	differences in those estimates, and what's the best way
20	then to draw upon that wide range of estimates to come
21	up with standard typical generic values.
22	And the way they have gone about it is
23	that they have used statistical analysis to analyse the
24	results of these large numbers of studies this large

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number of studies.

1	And so on the one side they have all of
2	the estimates of value for a particular use, on the
3	other side they have all the different reasons that
4	they can think of why you get those differences, they
5	could be to do with site, could be to do with
6	characteristics of the people, it could be to do with
7	the way the study was conducted.
8	But it's that equation they're referring
9	to here and they're saying: Look, if we've missed out
. 0	something important that would explain the differences
.1	in the estimates that are derived from the individual
.2	studies, then our understanding of why those
13	differences exist will be flawed.
14	Q. Can you turn to page 22, please.
15	A. Right.
16	Q. They really haven't changed the
L7	subject matter, there's a heading at top of page 18
1.8	that talks about Statistical Results, so this
L9	particular page was dealing, I guess, with the same
20	information but now more particularly in relation to
21	statistical results. So we have a sense of where we
22	are in the document.
23	And on page 22, it says, halfway down
24	approximately of the first full paragraph starting at
2.5	the lefthand margin:

1	"Unfortunately, an insufficient number of
2	studies have been completed to obtain
3	more than a few estimates of value by
4	this method. The agency requires benefit
5	estimates for 19 national recreation use
6	categories in nine Forest Regions for a
7	total of 171."
8	And I take it the 19 items that we were
9	referring to were the 19 items in Table 1 on page 9?
10	A. Yes, I think so.
11	Q. It says.
12	"However, only three of the 19 national
13	recreation use categories and four of the
14	nine Forest Regions are significant in
15	the models fitted to data from the study
16	sites."
17	What does that mean? What are they
18	saying here?
19	A. That's saying
20	Q. Because I got the impression all
21	right, you tell me. It doesn't matter what I thought
22	it was.
23	A. They are saying I think that, based
24	upon the studies they reviewed, it was not always
25	possible to come up with what they considered

1	statistically significant estimates for particular
2	combinations of uses and regions.
3	Q. When I read it it sounded to me that
4	only was it only three of the 19 national recreation
5	use categories well, all right.
6	Well, what does that mean in terms of
7	whether or not all nine regions have in fact prepared
8	estimates of values in relation to each of the 19
9	categories?
10	A. Okay. What it means is this, that
11	what they were hoping to derive, what they were
12	searching for were estimates of value for each of 19
13	individual recreational categories for each of nine
14	forest regions.
15	Q. Right.
16	A. Now, when they analysed the data it
17	turned out that there wasn't that they concluded
18	there wasn't statistically significantly different
19	estimates to be derived for each of the 19 different
20	uses.
21	Now, you can interpret that in different
22	ways. One way of interpreting it is to say that,
23	therefore, it's okay to use the same value for two or
24	more different kinds of uses, in fact, the paragraph

goes on to say - and they're referring here to

1	differences in the regions again - again, they were
2	allowing themselves the possibility that there will be
3	different value estimates for each of the regions for
4	each activity, but they say at the bottom of the
5	paragraph:
6	"The other regions may not differ
7	significantly from the average",
8	which, in other words, says there might be less of a
9	problem perhaps you're alluding to.
10	Q. All right. Well, I'm not trying to
11	allude to any problem.
12	A. Well
13	Q. You say that other regions may not
14	differ and you said that one of the interpretations was
15	the one you gave. What are some of the other
16	interpretations that might equally be applicable?
17	A. Well, the other interpretation, with
18	more information, more estimates, a difference might
19	emerge, but it hadn't when they analysed the data in
20	1988.
21	Q. Thank you. Could you turn to
22	overhead No. 27, that's going back again to you
23	referred to as Practical Implications of Incorporating
24	Non-Timber Values in Timber Management.
25	In Item No. 2, somewhat different than

1	the witness statement in that here, after the Item
2	which says:
3	"Assembly of estimates of non-timber
4	values that have already been made and
5	which might be directly applicable to
6	Ontario" you have put in brackets,
7	(currently compilied). Those words don't appear on
8	page 37 of the witness statement, I don't think I'm
9	not concerned about the difference, but I would like
. 0	you to tell me what you mean by currently compiled?
.1	A. Well, yes, that's perhaps a little
. 2	misleading. Some of that has been done, and I'm aware
.3	of some of those studies that apply to Ontario.
. 4	Q. Now, some of that has been done. By
. 5	whom has some of that been done?
. 6	A. Some of it's been done by VHB in its
17	work.
.8	Q. Are you aware of whether any of that
19	has been done by any ministry of the Government of
20	Ontario?
21	A. Well, most of the work by VHB was
22	done for the Government of Ontario.
23	Q. All right. Which ministry were you
24	doing the work for in that respect?
25	A. Ministry of the Environment.

1	Q. Now received your report.
2	A. You know, Mr. Freidin, I wonder if
3	you would mind, I didn't really complete what I wanted
4	to say about this Walsh study.
5	Q. Go ahead.
6	A. Particularly since we got into a
7	discussion of the Walsh study, because it was one of
8	the sources for the generic estimates.
9	Q. The generic estimates being the ones
.0	referred to in the chart?
.1	A. In Exhibit 2115.
. 2	Q. Okay.
.3	A. The people who did who produced
. 4	Exhibit 2115, as I said, face some of the problems that
.5	emerge when you look at the Walsh study, that's not the
.6	complete work and they recognize it's a developing
.7	area, but there are a number of references in this
.8	study in the literature cited which post-date the Walsh
.9	study.
20	In other words, the generic estimates
21	that appear in Exhibit 2115 are not based entirely or
22	exclusively on Walsh, they're based upon several other
23	studies which go a long way to filling the kind of
24	gaps

Q. Mm-hmm.

1		Athat we were looking at in the
2	Walsh study.	In particular, the study by McCollum and
3	others in 1990) which is the last one on page 30 of
4	Exhibit 2115.	
5		Q. Was that a document which reviewed or
6	referred to ac	dditional studies?
7		A. No, this was actually a new study
8	that simultane	eously estimated value of recreation in
9	national fores	sts throughout the U.S. based on nine
10	regions and 1	2 types of primary activities.
11		Q. All right. So that would sort of be
12	something sim	ilar to the kind of research you're saying
13	Ontario would	do if they, in fact, developed generic
14	relationships	?
15		A. That approach could be looked at,
16	yes.	
17		Q. All right.
18		A. The second thing I would say in
19	respect to th	e Walsh study is that whilst we were sort
20	of moving fro	m camping to other activities, they
21	comment that	the travel cost method which I spoke about
22	in my evidenc	e has been successfully applied to what
23	they call int	ermediate areas, those areas within a
24	hundred, 150	miles travel - which I think you'll find
25	covers a lot	of the kind of recreational activities for

1	which the forests of Ontario are used - and that most
2	of the studies that they reviewed fall in those two
3	categories, hunting and fishing.
4	Although they've covered off, you know, a
5	large number of activities, the majority of the studies
6	reviewed - it's about 55, 60 per cent of all the
7	studies - deal specifically with hunting and fishing.
8	So I just wanted to add that to complete the picture.
9	Q. I appreciate the clarification.
.0	The Muskoka study that it refers to, what
.1	was the purpose for that study being prepared, what
.2	sort of decisions were contemplated being made based on
.3	that kind of information?
. 4	A. There were two decisions that were
.5	being contemplated. One was whether, and the extent to
.6	which, Canada should take unilateral action to deal
.7	with acid rain; and, secondly, how best to formulate a
.8	strategy for negotiating with the Americans on acid
.9	rain.
20	Q. Okay, thank you. You refer to
21	overhead 23.
22	A. Yes.
23	Q. These are, as identified, Examples of
24	the Routine Use of Non-Timber Values in Resource

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Management.

1	A	. Yes.
2	Q	. Am I correct that all three of the
3	well, the first	three references deal with either
4	individual proj	ects or unique one-time estimates; in
5	other words	do you understand the question?
6	A	. Could you give it to me again,
7	please.	
8	Q	. All right. In No. 3, the Ontario
9	Hydro one	
10	A	. Yes.
.1	Q	you say that they include estimates
2	of the value of	environmental damages caused by power
13	generation in t	his application. What sort of
L4	information do	they provide to the National Energy
15	Board?	
L6	A	1. They provide estimates of the damages
17	as measured in	terms that I've been talking about at
18	this hearing, d	damages to aquatic systems, to
19	terrestrial eco	osystems, to human health, to buildings
20	and materials.	
21	Г	DR. KUBURSI: A. Fish.
22	Г	DR. VICTOR: A. Fish would be included
23	in aquatic.	
24	Ç	Q. Okay.
25	F	A. And your question was whether that

1	or your original question seemed to be whether that was
2	sort of a single purpose set of estimates. I can
3	clarify that for you.
4	This, in fact, is the second in a
5	sequence of estimates, it's done every time Ontario
6	Hydro applies for an export licence. The previous
7	application was 10 years ago and it's now taken to be a
8	routine requirement to satisfy the National Energy
9	Board that these kinds of estimates are brought
10	forward.
11	Q. Thank you. Dr. Kubursi, you
12	indicated very early on in your evidence that most
13	economic models tend to be at the aggregate level.
14	Now, when you made that comment, were you
15	referring to well, what sort of economic models were
16	you referring to, and why do they tend to be at the
17	aggregate level?
18	DR. KUBURSI: A. I was referring
19	primarily to impact, economic impact studies.
20	Q. Yes, okay.
21	A. And when I said they are at the
22	aggregate level, I meant that they are at the
23	provincial level.
24	Q. And why is that?
25	A. Because we don't have much data on

1	the subprovincial levels like counties.
2	Q. And why does the lack of data have
3	any effect on the level at which you use the tool?
4	A. The data I'm talking about is
5	input-output data, interindustrial data, the way
6	sectors relate to one another.
7	The input-output data Statistics Canada
8	generates is for the Canadian economy at large, and
9	this is on a yearly basis, and then for the provinces,
10	and this is on five years basis. No data,
11	interindustrial data is available or produced at lower
12	aggregates of that.
13	Q. You were indicating in your evidence,
14	though, I thought that your impact analysis,
15	notwithstanding the lack of data sort of being
16	aggregated below the province, could be used for
17	geographical areas smaller than the province?
18	A. Yes.
19	Q. And so I'm somewhat confused by that.
20	A. There is no need for confusion
21	because it's simple.
22	Q. Good.
23	A. Well, I'll try to explain. What
24	happened is that many economic impact analysis tend to
25	do in the States particularly and invariably also in

1	Canada, is that people would take the provincial
2	input-output, introduce the expenditures in a
3	particular region, and assume the same technological
4	information that is true at the provincial level is
5	also true at the local level. I don't do that.
6	Q. Why don't you do that, what do you
7	do, if anything?
8	A. Well, I don't do this because each
9	region has a different economic base and it's
0	inappropriate to believe that in the north you have the
1	same industrial structure and base that is present in
2	the south. I'll try and have prepared estimates on the
.3	local economic base at the county level?
4	Q. And when you talk about local
5	information at the county level, are you talking about
6	counties in southern Ontario or they don't have
7	counties I don't think in northern Ontario.
8	A. No, they do. Counties?
9	MR. MARTEL: Not in northern Ontario.
0	DR. KUBURSI: Yes Kenora, Rainy River.
1	We call them
2	MR. MARTEL: You mean districts.
3	DR. KUBURSI: Districtis.
4	MR. FREIDIN: Q. All right. So when you
5	were talking then about local all right, local

1	information and doing the model at the local level, and
2	you were talking about northern Ontario, you weren't
3	talking about counties you were talking about
4	districts?
5	DR. KUBURSI: A. Right.
6	Q. And when you talk about the District
7	of Kenora, I know what Kenora District is to the
8	Ministry of Natural Resources, are you talking about
9	the same district, are you talking about some other
10	district?
11	A. No, I think I'm talking about the
12	same district. These are statistical they are
13	political districts, but they have become also
14	statistical districts in the sense that Statistics
15	Canada produce numbers for the District of Kenora
16	Q. Right.
17	Aas a district.
18	Q. Right. There's a map behind you, and
19	I apologize for my ignorance of Ontario geography, does
20	it show the districts?
21	A. Yes.
22	Q. And how many districts do we have
23	A. In Ontario?
24	Q. Well, in the area of the undertaking.
25	Now, the area of the undertaking is on this man behind

1	the can somebody put this thing down. Can we put
2	the and maybe we could just take that out.
3	MR. O'LEARY: Exhibit 82.
4	MR. FREIDIN: Q. Exhibit 82 has been
5	sitting here for a long time, Dr. Kubursi, and no one
6	has referred to it.
7	But it outlines the area of the
8	undertaking. And in terms of sort of the area, let's
9	take it from Timmins to the Ontario border, how many
10	districts do we have, the kind of districts you were
11	referring to, approximately?
12	DR. KUBURSI: A. About seven.
13	Q. And could you give me an approximat
14	geographical area of those districts. I see some are
15	smaller.
16	A. Well, yeah, I tell you. Muskoka
17	northwest, we have Rainy River, Kenora, Thunder Bay,
18	and then you come to the northeast, you have
19	Kapuskasing and you have Timmins and you have Sudbury
20	and Algoma.
21	Q. Okay. And do you have ready access
22	to, or can you off the top of your head give me an
23	approximate geographical area of each of those
24	districts?
25	A. Not off the top of my head.

Would you be able to do that for me? 1 0. I mean, I could easily open -- I 2 A. think you might really have with you the table here 3 that was prepared by Statistics Canada and I can 4 5 provide it. It has that information? 0. 6 And provides it really on counties Α. 7 and districts--8 Oh, all right. Well, can you just 0. 9 read off --10 A. -- that are within the area of the 11 undertaking. 12 13 Just go to particular districts. Q. 14 What do you want to know? A. 15 Well, take the ones starting on the 16 westerly edge of the area of the undertaking and could 17 you read off for me the area of each of the districts 18 that you've referred to, that you say are within the 19 area of the undertaking. 20 Can I ask the counsel because they have the next one. This is -- I need the... Well, you 21 see -- do you have it? No, it's with you. 22 23 Q. Maybe we can deal with that during 24 the break. 25 Yeah, maybe we should. A.

	cr ex (Freidin)
1	Q. And we might even make a copy of that
2	particular page, that would be a lot easier.
3	A. But this particular information is
4	available.
5	Q. Sure.
6	A. I can name at least five statistical
7	catalogues that Statistics Canada put forward from the
8	census and from the various reporting mechanisms, they
9	report on population.
0	Let me give you some indication just
.1	quickly what sort of variables do we have. We have
.2	population, we have area, we have dwellings classified
1.3	by type of dwelling, we have the labour force and the
4	participation rates, women, children, unemployment by

Q. All sounds very interesting and I think what we'll do is we'll just find the most up-to-date one we can and we will just file it as an exhibit.

age, we have the industry divisions, and then we have

income composition and, you know, some other variables

A. Sure.

Q. All right. Dr. Kubursi, would you agree that the type - and this may also be applicable to your evidence as well Dr. Victor - would you agree

1	that the type and availability of alternatives affects
2	your willingness to pay or willingness to accept
3	analysis?
4	DR. VICTOR: A. Yes, I would agree that
5	the type and availability of alternative will affect
6	the estimates of the value of any one particular
7	option, yes.
8	Q. Would you agree that alternatives
9	outside a particular forest management unit will affect
10	the relative value put on a particular situation or
11	within a forest management unit?
12	A. Yes, and both with respect to timber
13	and non-timber, yes.
14	Q. And would you agree then, as forest
15	structure changes within and outside a forest
16	management unit, the relative value can change within
17	any particular forest management unit?
18	A. Yes, it could and, again, I would
19	just for clarification say that implies to both timber
20	values and non-timber values.
21	Q. Right. I would suggest, Dr. Victor,
22	that if that is true then you wouldn't want to model or
23	predict economic values based on a consideration of
24	what was occurring on one forest management unit only
25	A. I think what you're

- 1 --in isolation. 0. 2 Α. You would want to include in such estimates information on alternatives, yes, exactly as 3 we did in the Haliburton/Muskoka study. 4 5 Q. Right. And you would want to look at 6 alternatives outside the particular forest management 7 unit because what was going on there and what was there 8 in terms of alternatives would affect the value that 9 one would put on the situation or on a certain value 10 within the forest management unit; is that right? 11 Α. Yeah, that's correct. 12 And if that is the case, can we just 0. turn to -- all right. If that is the case then, 13 wouldn't it make sense that the planning process within 14 which you would want to consider environmental values 15 would be one which would look at an area larger than 16 17 just the forest management unit? Well, no, I don't think that follows 18 Α. at all. I think what I understand you were asking a 19 moment ago, I mean, just follows that the value of a 20 gain or loss in, let's say, a recreational opportunity 21 in a forest management unit--22 O. Right. 23 -- the value of that change will Α. 24
 - depend on what alternatives are available both within

25

1	the area and outside the area.
2	Q. Right.
3	A. That we agree on.
4	Q. Yes.
5	A. But that doesn't mean that it makes
6	no sense to do an evaluation study for an individual
7	FMU if that is the level at which the plan is being
8	developed.
9	Q. Okay. But if you're developing the
10	plan at that FMU level and you acknowledge that what
11	you decide there can be affected by what goes on next
12	door, what goes on next door can obviously affect what
13	goes on here.
14	Now so if we had five management units
15	and they were all in a cluster, they all were
16	contiguous but they all planned for their FMU at
17	different times, one each year, what would happen on
18	decisions made on No. 1 would affect the alternatives
19	on 2, 3, 4 and 5?
20	A. It could.
21	Q. And what happened on 2 obviously
22	would affect it, but now it could affect the
23	alternatives available for 3, 4 and 5?
24	A. It could, yes.
25	Q. And, in fact, by the time you get to

- No. 5 if, in fact, you made decisions based on the 1 preferences of the people on forest management unit 1, 2 2, 3, and 4 there may not be a lot of options available 3 for forest management unit No. 5. 4 5 Mr. Freidin -- sorry. Α. 6 . 0. And it's because of that concept that 7 I'm suggesting that the base at which you really look at environmental values as you've discussed because 8 9 this interaction is not on the individual FMU basis but 10 is on a larger basis so that you can make the kinds of 11 policy decisions that you described to me at the outset of your evidence. 12 13 A. I can answer your question in two 14 ways. First of all, the general issue that you're raising that the economic value of something depends 15 upon alternatives, that runs right across all estimates 16 of economic value, whether that's with respect to 17 non-timber values or timber. 18 I mean, what B.C. decides to do with 19 timber will affect or could affect the value of timber 20 in Ontario. 21 So I'm more concerned about bringing 22 it down to the ground and to the real world. 23 A. So -- no, this is the real world, 24
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this is very much the real world.

1	Q. Well, I know, theoretically, but I
2	want to apply that theory and those truisms to the real
3	world in terms of, what do you do now in terms of
4	planning?
5	A. The second part of my answer is that
6	the attraction of a multi-site travel cost method that
7	I illustrated with just the two sites and two
8	destinations, and I showed how a decision to open an
9	access road can make a new site available to
10	recreationists and that has ramifications for all the
11	other sites, and can affect the estimate of value, that
12	methodology is perfectly suitable for the kind of
13	problem that you've described, and I think all you're
14	really asking me is that if you were to look at a
15	particular forest management unit would you look at
16	just the sites where non-timber values are most
17	important within the forest management unit, and the
18	answer is, no, you would look at sites outside as well.
19	You've also asked I think, that it may be
20	quite appropriate in some circumstances to do a
21	multi-site economic analysis covering several FMUs at
22	one time. That might make a lot of sense.
23	Q. What would the sort of give me
24	some reasons that you think might, in fact, indicate
25	that that would be a good idea?

1 A. The sort of reasons would be, first 2 of all, it may be a cheaper way to get useful results. Instead of doing a hundred individual studies, we might 3 4 be able to do a smaller number of studies covering a 5 large number of FMUs but nevertheless have results that can be applied to each FMU. 6 7 Q. Right. 8 A. Yes, okay, Dr. Kubursi - I don't know 9 if you want to make that point. It might make for a 10 more suitable, or easier comparison with economic 11 impact analysis, that you might want to look at 12 economic impacts on an area that's larger than an 13 individual FMU. 14 Q. And as I understand it from your 15 evidence, Dr. Kubursi, economic impact analysis is usually on a district basis? 16 DR. KUBURSI: A. Right, and this might 17 relate to two or three FMUs within one district. 18 O. Why would it be useful to have sort 19 of the analysis then at the same sort of geographical 20 scale, Doctor? 21 Because they relate to the same Α. 22 economic base. 23 Q. And is that important then for -- is 24 that important, that in fact the analysis be at the 25

1	same economic base in your view, Dr. Kubursi?
2	A. Right, because then you might avoid
3	here double counting things that might be common to
4	both.
5	Q. All right. Anything else, Dr.
6	Victor?
7	DR. VICTOR: A. You better take me back
8	to the question, Mr. Freidin.
9	Q. Reasons that you think it might be
.0	advisable for the economic valuation to be done on a
.1	larger base, geographical base than one FMU. You
. 2	mentioned I think we have got three reasons now.
.3	A. I've given a couple of reasons. I'm
4	not sure these reasons are intended to make anybody
15	conclude that that's definitely the way to go. There
16	are reasons why you might want to do it though at a
L7	larger area; there are reasons why you might not want
18	to do it at a larger area.
19	Q. Now, Dr. Kubursi, when you gave your
20	evidence there was a discussion - I'll try to put this
21	in context for you - there was a discussion with Mr.
22	Martel about using economic valuation data from the
23	United States and applying it to northern Ontario
24	context.

25

And during that discussion you said, in

1	any particular management unit framework, if there will
2	be a proportionate change, the impact on tourism should
3	be looked at through a number of indicators.
4	Now, what did you mean by a proportionate
5	change in that context?
6	DR. KUBURSI: A. I'm sorry, I don't
7	recall that exact discussion with Mr. Martel that
8	something happening in the States can
9	Q. All right. Let's forget about the
.0	context. I've got you down as saying, in any
1	particular management unit framework, if there will be
2	a proportionate change, the impact on tourism should be
.3	looked at through a number of indicators.
4	A. Right.
.5	Q. Now, what did you mean by
6	proportionate change in that context?
7	A. Well, if there is anything that I
8	meant why in that context was that we're talking about
.9	the forest producing a joint product and what we're
0	talking about here is the case where there might be
1	conflict and that if there is you can't judge and
2	compare non-comparables, you really have to put the
3	matter on a proportionate basis.
4	So that I'm talking about a hundred
:5	million dollars of loss in tourism, I cannot compare it

to a billion dollar activity in something else, it has 1 to be on a common proportionate basis. 2 O. And what is the common proportionate 3 basis that you get through your --4 Well, there is really --5 What is the common proportionate 6 basis that you're referring to? 7 Well, you could do it a number of 8 ways. One way would be dollars. 9 Would be ...? Q. 10 11 Α. Dollars. 12 Dollars, yes. Q. 13 Money. I mean, we're comparing Α. 14 hundred million to hundred million, they're comparable. 15 Q. Right. 16 The other one could be space. We're 17 talking about a particular acreage, particular 18 distance. What you really need here is that 19 comparisons ought to be made on common standard basis, 20 you can't compare different things. 21 Q. All right. Now you, gentlemen, 22 because I assume that you're economists, have used 23 dollars and are familiar with using dollars as the standard basis of comparison. 24

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I think everybody does.

1	Q. Do people use these other methods,
2	space, or
3	A. Well, indeed. I mean, sometimes
4	economists also speak about reality and physical
5	spaces, yeah.
6	I mean, when we talk about employment we
7	don't talk about it in dollars, we talk about it in
8	person years, when we're talking about production, we
9	talk about it in tonnes. I mean, we don't talk about
10	dollars only.
11	Q. All right. Let me sort of follow up
12	on something else you said. You said where there might
13	be conflict
14	A. Yeah.
15	Qyou can't judge and compare on a
16	different basis, you need a standard basis for
17	comparison.
18	You also said in your evidence that you
19	would like tourism to be a complement not a replacement
20	for the forest industry. Only at the margin of
21	conflict in the TMP, then the kind of questions we talk
22	about become relevant.
23	You also said during the
24	cross-examination by Ms. Swenarchuk for Forests for
25	Tomorrow you said you agreed that it was better to

1	carry on more than one activity without conflict and
2	you said, when they don't co-exist these tools become
3	sharp and more useful and there we have to look at
4	alternatives.
5	And, Dr. Victor, you said in your closing
6	remarks that things should be looked at on a case by
7	case basis depending on the particular circumstances.
8	Now, when you say something should only
9	occur at the margin, only at margin of conflict in
10	timber management plans, then the kinds of questions we
11	talked about become relevant, what did you mean by
12	conflict?
13	DR. KUBURSI: A. Well, I meant here
14	things are very similar. If I can do more than one
15	thing on the same space and doesn't conflict,
16	everything is additive, there's no subtraction, then so
17	good and it's for the better.
18	I mean, I really shouldn't be worrying
19	about it. I might be interested in looking at what the
20	implications are, I may be concerned to see what sort
21	of jobs, what sort of income is adding, but everything
22	is additive.
23	I'm saying that things are additive and
24	when they're additive, as economists, we're getting
25	more from that physical space, from that physical

- 1 limited space, we're getting more bangs for our dollars from our space and because nobody is going to be 2 unhappy about this, we will all be happy. 3 4 The trouble arises -- sorry. 5 Q. No, go ahead. 6 The trouble arises when there is a conflict. When one -- if you increase one activity, 7 you are going to diminish another one and then you have 8 9 to compare. 10 Q. Are you saying then that whenever two
 - Q. Are you saying then that whenever two activities occur on the same land base you necessarily have conflict and, therefore, you should do the analysis?
 - A. No, you're saying that.
 - Q. No. You're not saying that?
 - A. I didn't say that, I said it may or
- may not.

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Q. All right then. If, in fact, the existence or the potential -- well, if the existence of conflict is a precondition to the necessity of using these tools, you say then, when that occurs these kinds of questions we talked about become relevant, what are the criteria one uses to determine whether there are such conflicts so you have got to say: Yeah, now we have got to use the tool?

1	A. I didn't say precondition, I said
2	they become sharpened, become more relevant. I mean,
3	they could be still relevant for the community to know
4	even when it gets additive and what are the total
5	impact of the jobs on the communities of the combined
6	activity.
7	But I said, if comparisons are to be
8	made, then these tools become very sharp because we are
9	able here to provide perspective one of all these
1.0	perspectives.
11	That's the message we want to convey
12	here, to decide on the relative merits and advantages
13	you get from both activities:
14	Q. But, Dr. Kubursi, I acknowledge - and
15	to be fair to you that's why I read all of the various
16	statements you made in this regard - and there is no
17	question you said, when they don't co-exist, you mean
18	two activities, conflict the tools become sharp and
19	more useful.
20	A. Yeah.
21	Q. There we have to look at
22	alternatives.
23	A. I mean, the way
24	Q. I still suggest to you in your
25	evidence, even there, and when you said only at the

1	margin of conflict in timber management plans, then the
2	kinds of questions we talked about become relevant,
3	that really your evidence was you were saying that
4	you don't have to use this tool all the time for every
5	activity in a timber management plan, you do it where
6	you have, or you've reached the margin of conflict.
7	Is that not a correct interpretation of
8	your evidence?
9	A. No.
.0	Q. Well, then if it's not a correct
.1	interpretation of your evidence you told me just a
.2	few minutes ago that you don't have to make this
.3	analysis everywhere, you do it only where there is a
. 4	margin of conflict, and you said pardon me, pardon
.5	me, sorry. You said that conflict doesn't exist
.6	necessarily where you have two activities going on in
.7	the same area; is that correct?
.8	A. Maybe I misspoke myself. Let me make
.9	myself very clear.
20	Q. That's what I want.
21	A. And I will. My intention was that
2	these tools are still relevant when things are still
23	additive, they become more relevant, they become
24	sharper, they become all the more necessary when we

have conflict because then we're forced to compare.

1	Q. And what are the criteria that you
2	use to determine whether there is a conflict so that
3	you can make the determination whether this tool
4	becomes more relevant?
5	A. Yeah. Well, I mean, I don't have to
6	tell you this because once there's conflict we know
7	about, the stakeholders will come, they will speak
8	loudly, there will be really conflicting claims, and is
9	the cases of remote tourism, this has arisen when some
10	of the timber cutting or type of cutting has come too
11	close.
12	So in that sense we are called upon in
13	the timber management process to deal with these
14	conflicts, and this is the case where I think these
15	tools become so relevant.
16	Q. Okay.
17	MADAM CHAIR: Are you going to a new
18	area, Mr. Freidin?
19	MR. FREIDIN: I'm sorry?
20	MADAM CHAIR: Are you moving to a new
21	area?
22	MR. FREIDIN: Soon but not yet.
23	MADAM CHAIR: It's break time.
24	MR. FREIDIN: Oh. All right, sure.
25	MR. MARTEL: Time flies when you're

1 having fun. 2 MR. FREIDIN: Sure does. 3 MADAM CHAIR: We will be back in 20 minutes. 4 5 --- Recess at 10:30 a.m. 6 ---On resuming at 10:55 a.m. 7 MADAM CHAIR: Please be seated. 8 MR. O'LEARY: Madam Chair, just perhaps 9 before Mr. Freidin starts I should identify the fact 10 that we've now distributed several of the remaining 11 exhibits that were marked yesterday, that includes the 12 complete copies of Exhibits 2120, which is the Economic 13 Impact of Remote Tourism Industry, the Upper and Lower 14 Spanish Forest, and Exhibit 2121, which is the Indicators of the Primary Impacts of Transportation 15 16 Improvements. We've also distributed a copy of Exhibit 17 2125 which you recall we reserved that number for the 18 hard copy of Dr. Kubursi's computer presentation in 19 respect of his MTR computer model, and Exhibit 2123, 20 which is the Provincial Park User Manual of Dr. 21 22 Kubursi's. MADAM CHAIR: All right. This is the 23 Provincial Park User Manual? 24

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MR. O'LEARY: That's correct.

1	MADAM CHAIR: And this is exhibit?
2	MR. O'LEARY: 2123.
3	MADAM CHAIR: Exhibit 2123. And which
4	exhibit number did we reserve for Dr. Kubursi's
5	MR. O'LEARY: 2125.
6	MADAM CHAIR: Thank you.
7	MR. O'LEARY: Just to identify the two
8	documents for the record, it's an eight-page document
9	with a date of February 25th, 1992, the first page
0	indicating visitors expenditures portion.
1	Exhibit 2123 is the user manual, the
2	first page being the table of contents, and it's a
3	bound document with a substantial number of pages.
4	MR. FREIDIN: Okay.
.5	MADAM CHAIR: Mr. Freidin.
.6	Excuse me, Mr. Freidin. Are you going to
.7	be finished by noon today?
.8	MR. FREIDIN: I'm going to try. It will
.9	be close.
20	Q. Dr. Victor, your overhead No. 16 -
?1	which I've marked up, it doesn't look the same any
22	more - that's the one where you have Evaluation of
23	Alternative Access Corridors.
24	DR. VICTOR: A. Yes.
25	Q. And I think you said in your evidence

that if you put the road to a combination of uses,

logging and tourism, then in fact a road might be

justified, or the cost of the road might be justified

sort of economically because you were, in fact,

creating two benefits; is that right?

- A. That's a possibility, yes.
- Q. And the analysis which you would do that would indicate that there might be a value in terms of the tourism -- let's say it's this example where you have a remote tourism lake, that you might have a very high value put on that road accessing that particular lake, notwithstanding there was a remote tourist operator on there, because there was a very strong and large group of anglers and hunters who wanted access to that area; is that correct?
 - A. That's possible, yes.
- Q. And that the economic value, if you were just looking at people within the unit, you would have that one tourist operator whose voice may get lost within the evaluation exercise because he was only one person against all these anglers and hunters; is that correct?
- A. Well, I don't know if he would get lost, but there's the possibility that his or her interests aren't coincident with those of the co-users.

1	Q. Right. And if they weren't
2	coincident with most of the users of the forest, then
3	the economic valuation exercise would indicate, put the
4	road towards the lake, give access to the lake?
5	A. It could result in that.
6	Q. Dr. Kubursi, on the other hand, if
7	you were doing an economic impact analysis in the same
8	situation your economic impact, assuming you did one
9	there, might say: No, let's keep the road away because
10	of the expenditures on the tourist operator the
11	economic impacts are greater there than if we put the
1.2	road to the lake; is that right?
13	DR. KUBURSI: A. It could.
14	Q. So you could have a conflict then
15	between the results of your economic valuation and your
16	economic impact analysis in terms of providing a
17	direction as to what you should do.
18	I know they don't make the decision, but
19	they're pushing you in different directions; is that
20	correct, in that example?
21	DR. VICTOR: A. Yes, that's possible.
22	Q. And when you get in that situation
23	and you've done an economic valuation and you've done
24	these economic tools and you've got that sort of
25	situation, how does a decision get made?

1	A. Well, I'm glad you asked that
2	question because I think it's a very important one.
3	What we're saying is that in developing a
4	timber management plan it makes very good sense to look
5	at alternative possible plans and alternative plans
6	will have different effects on the forest structure
7	and, therefore, different effects on the capacity of
8	the forest to supply timber and to supply all of the
9	non-timber values that we've talked about.
10	And what we've put before you are two
11	important methodologies; on the one hand valuation
12	methodology, on the other hand impact assessment
13	methodologies, that can be used to assist in the
14	comparison of the alternatives.
15	Now, how the decision ultimately gets
16	made, I think takes you into the nature of the planning
17	process you're talking about, and that's not really
18	something that I would say I'm an expert on.
19	All I'm saying, therefore, that I think
20	that the information on comparative values and
21	comparative impacts is essential for anybody in any
22	process to make a reasonable comparison of the
23	alternatives.
24	DR. KUBURSI: A. May I add one thing?
25	Q. Sure.

There is also here the chance of Α. 1 having a quantitative assessment of alternatives, so 2 we're aiding their decision-making. We're not making 3 the decision, we're giving a solid, or hopefully more 4 solid than is the case, of a base to make 5 information -- to make decisions on. 6 Q. Can you turn to term and condition 7 No. 30 of the Coalition, please. This deals with 8 access roads. 9 DR. VICTOR: A. Yes. 10 MADAM CHAIR: Is this condition No. 39? 11 12 Oh, is this MNR or OFAH? 13 MR. FREIDIN: No, this is the 14 Coalition's. 15 MR. MARTEL: Which one? 16 MR. FREIDIN: Page 6, term and condition 30. 17 18 MADAM CHAIR: Page 6. We don't have a 19 term and condition 30. T and C No. 30 deals with 20 special habitat management, condition 39 deals with 21 access roads. 22 MR. FREIDIN: 30. 23 MR. HANNA: Arabic. 24 MR. FREIDIN: Arabic 30. 25 MADAM CHAIR: That's the difference.

1		MR. FREIDIN: Oh, the Coalition are a
2	sneaky group.	Do we have that one?
3		MADAM CHAIR: Yes, we do, Mr. Freidin.
4		MR. FREIDIN: Q. Okay. Now, there was a
5	very short dis	cussion about practicality during your
6	examination an	d, Dr. Victor, you said: You know,
7	practicality i	s an intriguing concept, and Dr. Kubursi
8	had his views	on that.
9		And when I look at 30 sort of in the
0	context of pra	cticality - think that I asked this
1	question - it	says:
2		"Primary and secondary access shall be
3		planned for the next five and 20 years
4		using explicit cause/effect linkages and
5		a careful weighing of the advantages and
6		disadvantages in accordance with the
7		following:
8		(a) There shall be consideration and
.9		analysis of alternative corridors for
0		primary access for the 20-year period
1		and for secondary access roads for the
2		five-year term. The analysis of each
3		alternative corridor shall consist
4		of", and I want to focus in on No.
5	3 well, No.	1, it talks about use management

strategies, but No. 3 says: 1

"A quantitative assessment of the net 2 socio-economic benefits expected to be 3 realized locally, regionally and 4 provincially over the next five and 20 5 years for each use management

strategy considered."

Now, I have to read this, and I will try

to go slowly.

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Assuming that there are about a thousand primary and secondary forest access roads to be planned on forest management units across Ontario every five years - and that's just a simple calculation of 10 roads per forest management unit - and that each road has at least two alternative road corridors and at least two road use strategies, and that there must be three levels of analysis provided; i.e., the effect of all those things and combinations on local, regional and provincial, is it your opinion, gentlemen, that it is either reasonable or practical to expect that at least 12,000 quantitative assessments of net socio-economic benefits expected be prepared - and we're just talking about roads now, because that's - if my numbers are correct - that'sis really what this term and condition says would have to be done as a mandatory

- requirement of timber management planning? 1 2 Now, it seems to me a lot and --3 DR. VICTOR: A. Can I just hear your 4 numbers again. 5 Q. Sure. I said a thousand roads, primary and secondary, you've got two alternatives for 6 each, each of those has two road use strategies, and 7 8 for those roads you then have to do a net socio-economic benefit that will be realized locally, 9 10 regionally and provincially. 11 A. Well, my answer to the question is as 12 follows: As you rightly reminded us, when the word 13 practicality came up before I said that was an 14 intriguing concept, it's kind of intriguing to an 15 economist because it's not a concept that we call on first and foremost, what we look at is whether the 16 costs of doing something can be justified in terms of 17 18 the benefits. In my experience what I find with people 19 who very quickly resort to 'it's not practical' as an 20 argument for not doing something, is it's a very 21 arbitrary judgment of whether the costs of doing 22 something can be justified in terms of the benefits. 23 They say: Well, it's just not practical. 24
 - So that's why I don't begin by assuming

L	that I know the answer, the answer is known to whet	her
2	we ought to do something or not without looking at	the
2	and honofita	

Now, the problem statement, as I see it, is that somewhere, somehow, decisions have to be made about access roads.

Now, if it is true that the location and use management strategies of an access road has significant implications for both the value of the timber that can be obtained and the non-timber values that are associated, then somehow that process that we're talking about has to come to terms with these issues, and if these implications are significant, then it becomes worthwhile to spend funds of some sort to do the analysis.

Now, I should also say that on the surface 12,000 calculations are not -- that's not a problem, doing 12,000 calculations, depend on the type of calculation. Dr. Kubursi's computer yesterday was doing, in a sense, many more than 12,000 calculations as we sat there and watched it.

DR. KUBURSI: A. I actually calculated these things. I can give you the exact minutes and days of these things. First of all, you don't have 12,000, you have 4,000 because the provincial, local,

1 regional are options on the computer. It takes five minutes to do a run, it will take you to 20,000 2 minutes, 60 minutes to an hour, 333 human hours, 55 3 4 person days. 5 I don't think it's a very large cause, at the central depository with a computer, it's no 6 7 problem. 8 DR. VICTOR: A. But it still leaves open 9 the question of whether it's... 10 Q. Does the program exist to do that 11 now. Are you saying --12 DR. KUBURSI: A. Well, I mean, the one 13 you have it could be easily adjusted and you have 14 capacity at MNR, they have very competent people. I can name three people who could easily adjust it to 15 16 use. Name the three competent people? 17 0. Okay. Doug Driscoll. Α. 18 Who? 19 0. Doug Driscoll. A. 20 Q. Yes. 21 Don Holman. Α. 22 Yes. Q. 23 And Dan Mulroney. A. 24 Any opportunity I have to ask for Q. 25

1.	such listings, I ask. Okay. And is the time and t	he
2	cost, or the time you referred to the time to, in f	act,
3	get the information out of the computer?	

A. Yes.

Q. But that doesn't include the cost of getting the data to put into the computer?

A. I presume that this data is available. Actually I have here with me if you want some of the data that I picked from the Kenora timber management plan and this information on road maintenance, construction is usually routinely given.

Q. Those are costs of building the road?

A. And maintaining it, yes.

Q. All right. I'm talking about, if you have to analyse use management strategies, those are designed to say: No, we don't want the road open because we don't want people going to this area, or we are going to leave the road open to let people go to the area, or we're just going to have it open through certain seasons. All of those options have different -- result in different kinds of values. They would all also have different effect on economic impacts. So it seems to me that if a requirement like this says you've got to make this assessment, you've got to get the kind of data and do the kind of -- well,

get the data, I guess, to in fact be able to say what

the values are and how they are going to be different,

how the economic impact is going to be different so you

can put them in the computer and punch it out so you

can get it in your 55 man hours?

- A. But it is also a part of the terms and conditions of MNR is to collect this type of data, go through the timber management planning process providing this kind of exact data, and this is the kind of things we would like to encourage and hope you would do.
- Q. Well, I tend to differ. Where in the terms and conditions of the Ministry does it say that the kind of information that would be used for input into that model; i.e., different kinds of values and economic impacts, where do you see that that information is collected on a routine basis now?
- A. The data on routine basis in all the timber management documents, the one I looked at, Kenora's, provide this in details in terms of the cost and maintenance.
 - O. What about the other things?
- A. The other things I inferred it, as one might, from the fact that you are involved in the timber management plan where alternatives are now

1	needed and that it is the terms of the MNR mandate to
2	provide this type of data.
3	Q. All right. So you inferred it. Dr.
4	Victor, I took it from your evidence when you looked at
5	the Red Lake plan, you said there was no information
6	there that economic valuation was done, and so it seems
7	to me that
8	A. This is not valuation.
9	Q. Pardon me?
10	A. This is not valuation, were are
11	talking about alternative uses.
12	Q. But alternative uses have Dr.
13	Victor says can affect values. So I don't know whether
14	your experience by looking at the plan contradicts what
15	Dr. Kubursi inferred, and maybe you can help me, Dr.
16	Victor?
17	DR. VICTOR: A. Dr. Kubursi is talking
18	about the information required to compare the economic
19	impacts of different access roads.
20	MR. MARTEL: What page is that.
21	DR. VICTOR: That's what he's talking
22	about now in answer to his question, that the data are
23	available to do that and the impacts can be looked at
24	fairly readily.

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Your question also is concerned with

1	non-timber values. As I said in my evidence, in this
2	kind of work it's essential for the economist and the
3	forester, biologist, everybody to work together

Now, the economist is not the person who decides that, or is knowledgeable enough to know that locating access roads in different ways will have very significant effects. I mean, I have a sense that that's possible.

The information on that, the predictive information which says that if the choice of access road to be made will have significant impacts on recreation, on hunting, aesthetic values, given that premise, that these physical interventions in the forest will have those kind of effects, then that's when the economist joins in and says: Okay, and then these are the various ways of valuing those effects.

So if those effects are believed to be considerable - and, in fact, in your question to us you were sort of using that at least as an assumption, that the location of the road could have significantly different effects - then I don't see a sensible alternative to predicting what those kinds of effects will be and valuing them in some way so that a sensible decision can be made as to which is the best way to go.

Q. What if the decision has already been

1	made that, in fact, there will be tourist establishmen
2	there and that there will be forestry in the area and
3	that the process is one whereby you are basically
4	accepting that tourist operator there and you just are
5	trying to make sure that you put the road somewhere
6	where it's not going to have any effect.
7	Now, if that's what you're doing and if
8	that's what the process is designed to do and that's
9	the way it's set up, it doesn't seem to me that you
. 0	need an economic evaluation, you just deal with the
.1	issue at hand.
. 2	A. If you've already made the decision
. 3	as to where you're going to put a road
4	Q. No sorry, go ahead.
.5	A. If you've made that decision then an
.6	analysis of the alternatives can't help you.
17	Q. No, I'm not saying that you've said
18	where to put the road, I'm saying
L 9	A. Where not to put the road?
20	Q. No. Where not to put the road. You
21	already assumed let's say you've got a situation
22	where you're assuming that the two uses are going to
23	co-exist, that decision has been made and so what
2.4	you're doing the planning process is designed to

25 say: Look, let's make sure we have no impact, no

1	effect - let's use that word - on that tourist
2	operator, we're going to put the road somewhere where
3	it doesn't have an adverse effect on that tourist
4	operator. It doesn't seem to me that there is a
5	particular urgent need or requirement that you do an
6	environmental evaluation in that case?
7	A. What you're saying in that case is
8	that you are able to predict that by not putting it in
9	one particular area it's not going to make any
10	difference to the other values wherever you put it.
11	In other words, you're making that
12	prediction, you're saying as long as we don't put it
13	here it doesn't really matter then where we put it. To

me that is a prediction.

Now, I would - although I say I'm not an expert in that area - I would certainly ask of the person who I was working with if they made that prediction, you know, what is it based on. I would expect to get some sort of reasoned and hopefully empirical answer.

Now, if the prediction is that the location of the road within some area doesn't make a difference to the non-timber values or to the timber values, then we've done the comparison. It's not that we don't need to do it, we've done it, it doesn't make

1	a difference, it doesn't affect the total value derived
2	from the location of the road.
3	So I don't take your example to be one
4	which shows that you don't have to make the prediction,
5	I just take it as an example of a case where in that
6	situation the prediction is easy to make.
7	DR. KUBURSI: A. And has been made.
8	DR. VICTOR: A. And has been made.
9	Repeat but I don't know if that's the general case.
10	That seems to me to be a situation that may arise.
11	There may be many others that are different from that.
12	Q. Okay, thank you. Could we turn to
13	page 37 of the witness statement, please. Pardon me
14	yes, page 37.
15	A. Right.
16	Q. I'm going to try to do this quickly.
17	You have here what you call several implications of
18	implementing these proposed changes it's the same as,
19	basically, your overhead, I think page 27.
20	You say that it will take three to six
21	months to do No. 1. Now, when you say it will be
22	necessary for the proponent to become familiar with the
23	literature, are you talking about one person becoming
24	familiar with the literature should take three to six
25	months, or are you saying that all the people within

- the Ministry that have to sort of understand this 1 2 literature in some way to be able to apply the methodology can learn about it in three to six months? 3 4 A. What I am saying there is that, no, 5 not one person, this could be accomplished by one or a 6 small group of people writing an overview of the issues, specifically with the audience in mind; that 7 8 is, the people in the Ministry who will have to be 9 involved with this kind of work, and that doesn't mean 10 necessarily they will do it themselves, but at least to 11 have familiarity with it, that I think is the correct 12 term to use. 13 Are the people preparing timber 14 management plans the people that you think should be familiar with it? 15 The people actually preparing the 16 Α. plans will have to be more than familiar. I mean, you 17 will need somebody involved with plan preparation who's 18 got more than a familiarity with these methods, that 19 they have some capacity to actually apply them. 20 Do you have any understanding as to 21 0. whether, in fact, there are a lot of people out there 22 in the field who would prepare timber management plans 23 who've got that kind of training? 24
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A. I'm prepared to say that there are a

1	lot of people in Ontario who have the expertise.
2	Q. All right.
3	A. I couldn't speak to how many of those
4	people currently work in your Ministry.
5	Q. All right. So that would certainly
6	have an effect. The fewer that had a good grasp or
7	understanding of how these tools you're talking about
8	actually would be employed would, in fact, cause the
9	period within which one would have to become familiar
10	longer than if there was no familiarity. You'd agree
11	with that? You'd agree with that?
12	A. Yes, I agree with that.
13	Q. All right. And when you give the
14	three to six months, what assumption did you make sort
15	of as to the familiarity of all those people out in the
16	field that have to prepare timber management plans with
17	the methodology that you're referring to?
18	A. Well, the assumption I made is that
19	there's very limited familiarity in the Ministry at the
20	moment with these methods.
21	Q. How many people did you assume, if at
22	all, would have to be brought up to speed so that they
23	could be sufficiently familiar with this to, in fact,
24	start using it?

A. The assumption I made was that within Farr & Associates Reporting, Inc.

perhaps three months a document could be prepared, and 1 then over the three months, perhaps six months -- I 2 mean, within some amount of time of that order some 3 meetings could be convened, some training could be 4 5 provided, and that would be a very cost effective way 6 to make people familiar with these techniques. 7 Should the publics that the Ministry deal with also be familiarized with these procedures? 8 9 Yes, I think so, to the same extent 10 that they're familiarized with all of the other 11 technical procedures that have to be used in a timber 12 management plan. And how much time would be involved 13 0. and what sort of effort would be involved in making 14 15 sure those publics were brought up to speed? A. You know, yesterday I produced the 16 publication by the OACD as an example of a document 17 that already exists which summarizes these 18 methodologies and the rationale for them. That's one 19 of several of that sort. 20 These documents could be made available 21 to stakeholders. 22 Q. Dr. Victor, reading a document like 23 that and reading maybe even a lot of the documents that 24

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have been filed here, I suggest to you, it doesn't

- really help somebody out there in the field who's got
 to prepare a timber management plan and you say, start
 using the tool or start using the outputs of this sort
 of tool in your planning process. Those are two
 completely different things.
- A. There's a confusion here.
 - Q. Well, are they two different things?
- A. Yes, they are two different things,
- 9 that is why there are two recommendations here; one for
- 10 making the proponent familiar with the methods,
- because perhaps I'm mistaken but my reading of the
- documents from the Ministry, all the planning
- documents, the Class EA, a particular timber management
- plan, just reading those documents reveals no
- familiarity to speak of with these methods, it just
- doesn't seem to be there in the Ministry. Now, as I
- say, it may be mistaken, but it's certainly not coming
- 18 through in the documentation.

- So what I'm proposing in Item 1 here is
- 20 that a small effort be made so that the staff of the
- 21 Ministry being familiar with the methods. That's all
- that recommendation 1 refers to.
- Q. So it's to become familiar with it,
- 24 it's certainly not to implement it, it's to sort of
- introduce them to the concepts?

1	A. That's right. It's recommendation 3
2	which talks about drawing up technical manuals for the
3	estimation of non-timber values, in other words
4	Q. That's one year.
5	A. Yes.
6	Q. You said it wasn't that difficult to
7	draw up a manual and you could probably do it for about
8	a hundred thousand dollars?
9	A. That's a ballpark estimate, yes.
10	Q. All right. Now, that you've
11	familiarized these people in No. 1 and you've now taken
12	a year anyway to prepare these technical manuals, what
13	sort of involvement do the people in the field now who
14	are going to have to use the technical manuals going to
15	have to have, they're going to have to be trained now
16	too?
17	A. Yes. That year, as I mentioned
18	yesterday, allows for some time to be spent on training
19	and discussion with the people in the field as to the
20	content and structure and format of the document. So
21	it's all part of a process.
22	Q. There are a lot of different people
23	on a planning team. Are you suggesting that everybody
24	on the planning team should have sort of an equal
25	understanding of this tool so they can sit around and

1	discuss it amongst themselves and figure out what to do
2	with the results?
3	A. No, certainly not.
4	Q. So how many people on each planning
5	team should be given this special knowledge?
6	A. It's simple to say there should be
7	one person on the planning team who would have some
8	expertise in socio-economic analysis. That's the easy
9	answer, and it's the answer that I'm inclined to give.
10	I could see an argument for saying that
11	the socio-economic implications of timber management
12	are so significant, and ultimately what the whole issue
13	is all about, that you may find justification for more
14	than one person on the planning team, but you need at
15	least one, yes.
16	Q. And is the training of that one
17	person for every timber management for each of the
18	planning teams been included in your one-year estimate?
19	A. It's not unreasonable whether it's
20	one, one and a half years or even nine months, I'm not
21	prepared to say. I don't want to imply that this
22	estimate of time and cost is more accurate than it is.
23	It's intended to give the Board an
24	appreciation of the fact that starting from a
25	significant literature and a significant expertise

1	within the province, if not in the Ministry, this
2	information can be pulled together in a comparatively
3	short time at relatively low cost. That's the message.
4	Q. So you wouldn't suggest any specific
5	time frames being imposed on the Ministry to do all
6	this.
7	A. It
8	Q. Well
9	A. Well, it amazes me that the Ministry
10	is not in this situation already.
11	Q. Well, I understand that that's your
12	position, Dr. Victor, but you know, we're dealing with
13	a number of recommendations
14	A. Yes.
15	Qfrom a number of parties saying
16	things have got to be done, I mean, they just have to
17	be done, and certain parties are saying, and they
18	should be done within certain time periods.
19	A. Yes.
20	Q. And I want to know whether you're
21	recommending that, in fact, it's reasonable to
22	impose just taking this one thing out of context of
23	everything else that's going on, and saying it's got to
24	be done in six months, it's got to be done in a year.

I mean, how can you --

1	A. Well, Mr. Freidin, as I said to you,
2	my view on timber management planning, at least within
3	the context that I've talked about it, is that you have
4	to look at alternatives and you have to evaluate them,
5	and these are tools, better tools than any others that
6	I know of, that can be used for doing the evaluation.
7	Now, if the Ministry is not in a position
8	to do these kinds of evaluations, then the Ministry
9	faces a very serious problem because it has
. 0	responsibility to do the plans and it doesn't have the
.1	expertise to do it.
L2	All I can recommend is that it get the
13	expertise as quickly as possible. And that's why I was
L4	pleased to see that change in your own terms and
15	conditions which called for an expenditure of \$200,000
16	on some of these issues.
1.7	I mean, I'm saying what I think the
18	Ministry is already beginning to say in that respect,
19	and I think it can be done fairly quickly and fairly
20	cheaply and, yes, I do say you should give it high
21	priority.
22	MR. MARTEL: Can I ask a couple of
23	questions, because I worry about the public
24	involvement, and you indicate they need training to
25	some degree, they have to get some understanding of the

l process.

When you look at the stakeholder team, and they're going to be involved, it might be somewhat more difficult, you're not going out and hiring these people, they come forward by choice, they might have absolutely no experience or no inclination or no desire to learn about computer modeling and how that affects — that's why the time factor becomes critical.

I think to get the moose guidelines

across, we're talking about people in the field who had

years of experience, and I think it's fair to say that

the first run at it was a bit of a disaster and they

had to redo it.

And I think the second run it's estimated will take two years to train the necessary personnel, and here we're talking about, we don't have an economist in each area, I don't think, in fact I don't think there's an economist on any planning team to my knowledge yet or even considered part of a planning team yet, we have a hundred units with masses of people to be trained at the industry level because they're involved in some of the plans, and I think what I have a concern about is not that it shouldn't be done maybe, but the time limits that are being put on or recommended, which might not -- in fact, which might

1	take more than - even with the best intentions - two,
2	three, four years and the limitations that seem to be
3	imposed.

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I think you're heading in -- you have a collision course, you're going to have, I think the term you used, a conflict, because I don't know how you train all those people, particularly across northern Ontario, you know, where people have to travel great distances, not always easy, volunteers mixed in with Ministry staff, and so I just wonder if the time limit, certainly ones that are preparing material might be because you have got professional staff that will do that, but after that I'm jsut wondering if one has looked carefully at the requirements for training. DR. VICTOR: Okay, I would like to

respond to that.

MR. MARTEL: All right.

DR. VICTOR: There are two things that I mentioned, one is what's required to make the public, the volunteers, the various stakeholders familiar with what to them may be a new approach, a new technique; and, secondly, was the issue of training the professional staff to actually implement the methods.

I'll talk about the second one first. my opinion, it's most unlikely that you need a hundred

separate experts to do this. There is absolutely no reason why the same expert can't be involved in the socio-economic analysis of several timber management plans.

It's not something by its nature that requires your continual effort the whole year and there's data gathering exercises, you have to wait for some of the data to be provided by other participants in the planning exercise. So that's one factor. The other is that not all the plans are going to be done in any one year.

So I think the numbers of people who would have to have sufficient expertise to implement these methods, you know, is not in the hundreds, it may be as few as a core of 10 people who could be hired, if the funds were there, very quickly; if not, you're looking at retraining people. So the demand on the professionals is perhaps less than you might be concerned about.

As for the public, now, this is a matter of great significance I think to all people involved in technical analysis which is designed to somehow help the public and in a context where public participation is important, and I don't think it's a special problem for the economic component of the work, I think the

L	public has as much difficulty in understanding how the
2	forester does his or her job and how they make their
3	predictions, how the aquatic scientist does it, the
1	economist is just one of several people who I think are
5	duty bound to try to explain their methods to the
6	interested public, but that's a very different level of
7	conversation, if you like, than training a professional
В	to actually do the work.

So I mean, I don't know how you will judge how successful we've been in explaining the methods to this Board but, I mean, that sort of explanation doesn't take an inordinate amount of time.

MR. MARTEL: Well, but you have to have some background in terms of trying to understand it. I mean, many of those people have absolutely no experience with computers, computer modeling or anything, and it's very difficult concepts to grasp.

I'm simply saying, when one looks at -- I mean, one of the concerns we have is how we're going to keep the public involved in this process, since they're volunteer, and there's talk of paying them their costs, that can be a problem because I'm not sure that will hold the public. The more complicated it gets for them to make decisions, the more -- unless they've got such an interest in it, I think you'll see a lot of them

- say: Wait, this is just over my head and I'm not getting involved.
- I mean, I just worry about why you put

 yourself in such a tight time frame when you're

 starting from very little sort of analysis being done

 and saying: Well, roughly a year and we're up and

 running. I just ask if that's realistic.

DR. KUBURSI: But, you see, we might want to distinguish between the methods and results. Surely people can relate to some of the concepts I was talking to: Jobs, taxes, things — I mean, these are bread and butter issues use for them and they can relate to it on extension of experience basis. The issue would be whether this computer, how is it really churning these things. This is where we have to separate maybe these two very distinctly.

that will generate these numbers and there will be also another group, and maybe someplace inbetween people would have to come and translate these things, but ultimately the challenge for the technicians and the professionals is to make these data and analysis relevant and accessible and understandable, and I think really there is the challenge.

MR. MARTEL: Sure, Dr. Kubursi, but we've

been sitting here four years with the challenge and 1 we're not done. 2 DR. KUBURST: Yeah. 3 MR. MARTEL: And who'd have thought four Δ years ago that this little episode would take four 5 years. We have another year, year and a half. I mean, 6 it's much more complex--7 DR. KUBURSI: It is. 8 MR. MARTEL: -- than most people are 9 prepared to admit, I mean, unless you live it. I mean, 10 golly, you're asking people who might have an interest 11 12 with a cottage if you're in Haliburton region, in 13 northern Ontario it might be the people we heard

But when you get -- as you make it more and more complex, it's not so simple.

livelihood and part of their recreation.

they're interested in making sure there's moose for

them to go hunting and there's fishing because that's

part of their life. I mean, they live in the north and

in the bush and they want those -- that's part of their

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DR. VICTOR: Well, it's where the complexity comes in. I think, as Dr. Kubursi has said, dealing with the public and saying, look and looking at the alternative plans we've estimated the impact on jobs and taxes, wages.

1	I think the very first thing you would
2	like to do is make sure the public at least thinks
3	you're talking a language. Now, they may want to know:
4	How did you make the estimates. That's where you get
5	into the complexity.
6	It's the same with non-timber values, if
7	you say in looking at the alternative plans we've tried
8	to give due weight to the range of non-timber values.
9	Again, members of the public at least
10	think: Well, the right things are in there, they may
11	not understand in all it's fine detail exactly how the
12	estimates were arrived at, but at least the matters are
13	on the table.
14	DR. KUBURSI: The way we use a car. I
15	mean, we teach people how to drive it, they don't know
16	how the carburetor is working or the ignition is
17	working. The issue is, how simple can we make it, how
18	useful can we make it. And this is a challenge,
19	absolutely, and economists have failed miserably on
20	this.
21	What we are providing here is some simple
22	techniques that I hope will be successful. Not
23	everybody in our profession is as simple as this.
24	MADAM CHAIR: Let me understand what the
25	product would be as a result. I thought we were

1	talking about something that would be a few pages that
2	would be under discussion by local citizens groups.
3	We're not talking about user manuals and
4	we're not talking about extremely detailed rationales
5	as to what went into this and, in fact, that
6	conversation wouldn't take place unless someone
7	challenged what the final number was, and then someone
8	would have to take the time to take them through the
9	model and how the result was produced?
10	DR. KUBURSI: That's right, Ma'am, and
11	that's exactly what we are.
1.2	MR. FREIDIN: Q. And so you would see
13	that during a timber management planning process that
14	if someone did come along and challenge the numbers,
15	then there could be a big debate about how the model
16	was, in fact, created, whether the assumptions were
17	correct, whether the analysis was correct?
18	DR. VICTOR: A. Well, no more than in
19	relation to all the other aspects of the plan.
20	Q. Fair enough. Would you turn to the
21	terms and conditions of the Coalition page 28. Okay.
22	MADAM CHAIR: Page 28, Mr. Freidin?
23	MR. FREIDIN: Page 28.
24	MADAM CHAIR: Thank you.
25	MR. FREIDIN: Q. Here you have terms an

- conditions in relation to socio-economic assessment, 1 which I think you adopted, and we just had a 2 conversation with the Board about involvement of the 3 public and, you know, I think you were talking about 4 where the technical sort of certain things are 5 6 technical and certain things are explaining things to 7 the public. 8 You're nodding agreement, Dr. Kubursi? 9 DR. KUBURSI: A. Sorry, I wasn't paying 10 attention. Could you please repeat. 11 Q. We had this conversation, you're 12 talking about the public being involved in the process 13 in terms of being involved with this sort of approach, economic valuation? 14 15 Α. Mm-hmm. And I took it from what you were 16 saying is that you sort of draw the line somewhere 17 between what sorts of technical and then what you 18 provide to the public and try to explain to them; is 19 20 that correct? That's absolutely right. I mean, let Α. 21 me just lead you to an analogy which is very simple. I 22 driver my car, it doesn't work, I take it to a 23
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technician, all right. Sometimes I pretend I know what

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I'm doing.

1	But the point is, we have some
2	specialized people, I have some confidence in them, I
3	may not believe them totally, I might go to more than
4	one, but this is the way we operate on everything.
5	Q. Right. And if you look at 164, in
6	terms of the involvement of public, it seems to say
7	more than involvement than what you were talking about,
8	and this is not in relation to the plan processing per
9	se, it's in relation to the development of the tool
1.0	itself. It says:
1.1	"The predictive procedure shall be
1.2	developed in consultation with
13	appropriate and adequate public input and
14	the final version shall be reviewed
15	publicly before implementation."
16	Now, that's sort of one of the reasons I
17	asked you about, you know, you have to go to your
18	publics in terms of these things.
19	I mean, here's a term and condition that
20	says whatever predicted procedures are developed, the
21	final version has got to be, it's got to be done with
22	public input and the final version shall be reviewed
23	fully by the public before it's implemented.
24	Now, that sounds like something that
25	you're not going to do in three months or six months,

- l you may do that in a year.
- Assuming for the moment you want to go to
- 3 the public and sort of have a meaningful discussion
- 4 with them as opposed to saying: Here is what we're
- doing and we don't care what you say we're going to go
- 6 ahead.
- 7 DR. VICTOR: A. These questions started
- 8 from page 37 of my witness statement, the five points
- 9 and those points --
- Q. I'm not sure there's any particular
- 11 connection, but...
- A. Well, you said that not me. But
- those five points were focused on what it will take the
- 14 Ministry to get itself into position so that it can do
- 15 the kind of analysis that we've been talking about.
- Now, you're introducing, as I understand
- it, the guestion of how -- what's the public
- 18 involvement in all of this. The view being put forward
- 19 here on timber management planning is that alternative
- 20 plans should be examined for any FMU, that the
- 21 predicted impacts of the plans should be set out, and
- that the values of those impacts should be set out.
- Q. Right. And you've given some
- estimates about how long it should take to do all this,
- and Mr. Martel has asked you a number of questions, and

1	then I look at term 164 and it says that:
2	"The predictive procedures", and I'm
3	assuming we're talking about this economic analysis or
4	valuation and perhaps impact analysis:
5	"shall be developed", and I take it
6	that means by the ministry:
7	"in consultation with appropriate and
8	adequate public input and the final
9	version shall be fully reviewed publicly
10	before implementation."
11	Now, do you know what those words are
12	suggesting has to take plac ebefore implementation will
13	occur? Did you have any view as to what those words
14	meant when you came up with your estimates in relation
15	to the time frames on overhead No. 27?
16	A. That was my point, I thought, that
17	the time frames for overhead No. 27 were time frames
18	required to get the Ministry into a position that it
19	could do the analysis, okay, that you would have the
20	expertise and the wherewith all the manuals to do the
21	analysis. Now, you're in that position, you have to do
22	a timber management plan.
23	Q. You haven't answered my question, Dr
24	Victor. My question was, not getting the Ministry up
25	to speed so they could use it for timber management

purposes. When you made your estimates of time--1 2 Yes, for what though? Α. 3 All right. All right, let's just 4 It will be necessary for the proponent to become familiar with the literature, and you told me in 5 6 answer to my cross-examination question that that would 7 involve bringing the public up to speed? 8 Α. You asked me about the public. 9 Yes. The ministry's publics, people Q. that they deal with, and you said, yes, you would have 10 to explain that to them. 11 12 A. That's right, but this particular 13 statement here, as you see, refers to my estimate of 14 what it will take for the proponent to become familiar. 15 You asked, would it also be important for the public to become familiar and I agreed yes. 16 17 Q. All right. When you said yes, all right, does that -- assuming that bringing the public 18 up to speed includes involving them as suggested in 19 164, did you include the time frame for doing what 164 20 says in any of the time frames that you gave in your 21 evidence for implementation of these tools? 22 A. No, because they're two different 23 24 things. So you didn't include them. So then Q. 25

1	the question is: How long do you think it would take
2	to, in fact, do what 164 says which are, in fact,
3	preconditions to the implementation of the tool?
4	A. I interpret 164 to refer to all
5	predictive procedures relevant to timber management
6	planning.
7	Q. No, it says socio-economic
8	assessment.
9	A. That's right, but as I've said on
10	several occasions here, the socio-economic assessment
11	doesn't start in the abstract, it starts from
12	predictions of the impacts.
13	The main particularly on the
14	evaluation side, the main part of the prediction is to
15	predict the impacts on recreational use, on hunting
16	activity, and prior to that predicting impacts on
17	populations of animals. Those are the predictions that
18	feed into the socio-economic analysis.
19	Now, as far as I understand it, even if
20	you were not to value those changes in economic terms,
21	you would still want to make the public familiar with
22	those predictive tools, they will still be the things
23	that you will be looking at.
24	Q. What are the predictive procedures

when they use the word procedures here, what's meant by

1	that?
2	A. Well, I've already said that I think
3	it includes, and my interpretation was, it includes all
4	predictive procedures relevant to the socio-economic
5	analysis.
6	Q. All right. Well, that's what you
7	think it means. Are you able to say what it does mean?
8	You've adopted these words so you're basically
9	supporting this term and condition if procedures has
10	the meaning you're referring to?
11	A. If it refers to all procedures
12	relevant to the socio-economic assessment, yes, that's
13	what I'm adopting.
14	Q. And does procedures I mean,
15	there's methodology like environmental valuation.
16	A. Yes.
17	Q. Give me a real life example of what a
18	predictive procedure might be, like, I don't know what
19	the term and condition is really saying.
20	A. Well, we looked at an example
21	yesterday with the pine marten which showed how, in
22	graphical terms, a connection can be made between
23	different forest structures and the pine marten
24	population.
25	Q. Certain cause/effect relationships

1	were predicted?
2	A. That's right, right.
3	Q. Okay.
4	A. The procedures necessary to arrive a
5	those connections will be included here under
6	predictive procedures. Now, this is an example of
7	where adding an economic component to that, I think,
8	will make it clear to you that it doesn't impose a very
9	significant additional burden on what anybody is being
10	asked to understand.
11	It says, that if we are forecasting or
12	predicting as a result of a particular plan a loss in
13	pine marten population, we could just stop there and
14	say that's just one of the things that will go into th
15	comparison of the plan; what I'm saying is that we can
16	value the loss in the pine marten population and, in
17	that particular case, since it has a commercial value,
18	we might use that commercial value.
19	Now, I don't think that's, in that
20	particular instance at any rate, a very difficult thin
21	to explain to anybody.
22	Q. So are you saying that there should
23	be cause/effect relationships defined between certain

activities and its effect on economic valuation and

economic impacts; is that what you're saying?

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1	A. Yes, yes.
2	Q. Cause/effect relationships should be
3	defined?
4	A. Yes.
5	Q. They should be developed, is the way
6	you interpret that. That's what it means here, the
7	predictive procedure shall be developed?
8	A. Yes.
9	Q. And now you've got to do that in
10	consultation with these various people and it's got to
11	be reviewed publicly. Now, give me a list of the kinds
12	of cause/effect relationships which you have in mind
13	which would have to be developed
14	A. Well, take for example
15	Q and provide it to the public for
16	review before the Ministry could implement it?
17	A. How do you mean before the Ministry
18	could implement it?
19	Q. Well, this says that the predictive
20	procedures which you now have said are cause/effect
21	relationships between activities out there in the field
22	and the effects on environmental valuation pardon
23	me, economic valuation and impacts must be developed,
24	and those cause/effect relationships have to be derived
25	with public input, and in the final version it says

1	here, shall be reviewed publicly before the
2	implementation.
3	Now, if that's what it says, that's what
4	you have now said it says, what are the kind of
5	cause/effect relationships that you're saying should be
6	developed in consultation with the public and reviewed
7	before they are actually used in timber management
8	planning?
9	A. Okay. I understand now, I think.
10	I can't give you an estimate of the time it will take
11	to do this with respect to the biophysical component.
12	Q. All right. I'm not
L3	A. Okay.
L 4	Q. All right.
L5	A. So all I can talk to you about is
16	what additional time might be required to deal with the
17	economic component that comes at the end of the
18	biophysical analysis.
1.9	Q. Now, that's the time to deal with it
20	at the end of
21	A. Well, the time to obtain appropriate
22	and adequate public input on that additional component
23	to the predictive procedures. It's perhaps getting
24	more complicated.

MADAM CHAIR: Excuse me, Dr. Victor. The

1	point that the Board is taking from Mr. Freidin's
2	cross-examination is that this condition would tie
3	MNR's hands with respect to, for example, conducting
4	socio-economic analysis until they had gone through
5	some sort of formal public consultation.
6	In other words, even if it only took them
7	a year to get themselves organized to do such analysis,
8	they couldn't do it, that's one interpretation of the
9	wording of this term and condition. They couldn't do
10	it until they had received some sort of public input
1	review inferring to proceed, that's one interpretation
.2	of what this term and condition says.
13	MR. MARTEL: In fact it goes further than
4	that. It says:
.5	"The predictive procedures shall be
.6	developed in consultation with the
17	appropriate and adequate public"
.8	So you've got two steps, you have to
.9	develop all of these things with public input and then
20	take it out to the final version for a public review.
21	Again, it comes back to my original
22	question: Are you boxing yourself in needlessly by
23	imposing time limits which make the whole exercise
0.4	impossible, because I don't know how you could view or

go to the public to help -- and that's not even --

1	and I think that's why Mr. Freidin is trying to get you
2	to give a list of the predictive tools the
3	cause/effect relationships involved to take a look at
4	it in the total package, okay.

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What are we talking about, how long do we go out and meet with the public to develop this, then we have to come back and make a final draft - you can call it a draft or - and then we have got to go back and get approval, and I just want to know how long this is going to take and how much.

I mean, that's what we're trying to get at because this seems, as my colleague says, puts MNR in a -- you read that by itself and you're so strapped you can't move, at least that's what it appears like on the surface.

DR. VICTOR: Yes. All I was -- I understand that and I think the simplest answer I can give you now that I understand it better is that I haven't made an estimate of that time. This did not -- this was not figured into my estimates of time to get the Ministry up to speed on how to do these things, I acknowledge that.

The only other point I would make, though, is that the economic components of this would, in itself, not add very much if anything to it, but I

did not make an estimate of what would be required to 1 2 implement 164. 3 MR. MARTEL: But can I just stop you there because you say the economic -- I think you said 4 5 the economic --6 DR. VICTOR: Component. 7 MR. MARTEL: --component. But, you see, 8 this says that the public is even going to get involved in that development. That's a worry because, quite 9 10 frankly, I'm not sure how many people out there are 11 into economics sufficiently to tell you what the 12 economic components should be. 13 DR. KUBURSI: But there's a down side to 14 it. What if we completely exclude the public and then 15 the bureaucrats --MR. MARTEL: I understand the concern, 16 we're trying to keep people involved, Doctor, but I'm 17 simply saying it then takes longer, if you want to 18 involve the public, there's a bit of an educational 19 process and this all takes time. 20 It's not a one-step procedure we're 21 talking about, we're talking about a very 22 complicated -- because you're taking the public from 23 square zero or square one to having them help to 24

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develop and then, finally, after you develop, approve

1	the various cause/effect relationships and so on
2	necessary.
3	And just as my colleauge says, they're
4	strapped, they can't do anything if that were accepted
5	the way it reads, at least the way I read it.
6	MR. FREIDIN: Q. Dr. Kubursi, you're
7	nodding in agreement?
8	DR. KUBURSI: A. I do this as a habit.
9	Q. But is the habit
LO	A. I'm the teacher if you want, I like
11	to couch my students.
12	Q. In this case were you indicating
L3	agreement with what Mr. Martel was saying?
L4	A. Oh, indeed, there are lots of things
15	that Mr. Martel said I agree with and, in this respect,
16	I agree with the gist of it. I still really find that
17	two things that one can add here, and I hope Mr. Martel
18	will allow me, that I can't draw like Rembrandt.
19	Q. Pardon me?
20	A. I can't draw like Rembrandt or one of
21	the best, Picasso is your favourite, I can't appreciate
22	whether it's good or not, and we tend to really somehow
23	chastise the public as being some sort of idiots.
24	I think they can relate to lots of these.

issues and they have really gut feelings about the

things we're talking about and I suppose that with 1 stakeholders they will come prepared and I'm sure Mr. 2 Martel in the public domain knows these things. 3 4 I'm totally surprised about sometimes my students who, totally unfamiliar with certain concepts, 5 6 can grasp and come up with new novel ideas. I mean, we really have to keep that system open and I think that's 7 the issue here is the openness of the system. 8 9 MR. MARTEL: Sure, but all I'm simply 10 saying, you've got such a massive public out there, 11 area by area, to develop. I mean, I don't undersell 12 the public, Dr. Kubursi, I used to have to face them 13 every four years. 14 DR. KUBURSI: That's what I'm saying. MR. MARTEL: There's no tenure, it's not 15 like being at university, and I'm just saying we 16 have -- but that by itself, start by itself, stuck out 17 there makes it very difficult, that's all I'm saying. 18 It looks to be, I'm not going to make the 19 conclusion that it is, but I'm saying it looks as 20 though it's very, very difficult to get around with 21 22 that language. MR. FREIDIN: Mr. Martel, and I think 23 it's the last question before lunch. 24

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MADAM CHAIR: Oh, I think we have time

1	for a last question, Mr. Freidin. Is this on the same
2	subject?
3	MR. FREIDIN: Oh, just sort of an
4	observation, whether you'd agree that all of your
5	students, they are full time and their major role in
6	life is to understand what you're talking about and to
7	pass their exams, as opposed to somebody who's going to
8	be sitting on a timber management planning team from
9	the public. A little different in terms of how ready
10	they come to the exercise.
11	DR. KUBURSI: They can relate naturally,
12	I think, sir.
13	MADAM CHAIR: How long will you be after
14	lunch, Mr. Freidin?
15	MR. FREIDIN: This is becoming so
16	interesting. We will finish this afternoon. I don't
17	know, I'll be another hour.
18	MADAM CHAIR: Okay. If there's no
19	objection from the parties, we will take a two-hour
20	lunch today. Okay. Be back at two o'clock.
21	Luncheon recess at 12:00 p.m.
22	On resuming at 2:00 p.m.
23	MADAM CHAIR: Please be seated.
24	Go ahead, Mr. Freidin.
25	MR. FREIDIN: Q. Hopefully one last

- question in relation to page 37 of the witness 1 statement which is also similar to overhead 27. Page 2 37 of the witness statement. I think -- sorry, we 3 better go through overhead 27. 4 5 DR. VICTOR: A. All right. 6 Q. Overhead 27, again, the Practical Implications of Incorporating Non-Timber Values in 7 Timber Management, that's the one where you've added 8 Item No. 4, coordination of routine data collection of 9 10 forest use patterns suitable for economic valuation. There's reference there to forest use patterns. 11 12 Would you agree that to do what is 13 suggested by the Coalition terms and conditions and to 14 do the kinds of environmental or kind of economic 15 valuation that you're speaking of, you'd also have to collect data or do some sort of analysis in relation to 16 non-use values as well? 17 Yes, if you want to estimate the 18 value of the forest to non-users you need information 19 20 on non-use, yes.
 - Q. And that was one of the items which you didn't indicate any sort of estimate of cost or time. Are you able to provide any estimate of time or cost to, in fact, do the coordination of that data for either -- well, for use patterns and for non-use

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1	values?
2	A. In the witness statement, this is in
3	answer to Question 75 where I've listed the five items
4	I've used the terminology non-timber values, and
5	non-timber values would include the values from use and
6	non-use.
7	Q. Good, thank you. Can we turn to
8	overhead No. 5 in Exhibit No
9	MADAM CHAIR: 2113?
10	MR. FREIDIN: Yes.
11	Q. Now, the value you indicated that
12	you put this particular overhead together for
13	demonstration purposes?
14	DR. VICTOR: A. Yes, to show how the
15	value of wood can be estimated, correct.
16	Q. And that we weren't to put any
17	particular significance to the fact that the value of
18	wood was \$6.93 as opposed to some other number?
19	A. That's correct, yes.
20	Q. All right. Can you confirm for me
21	that the net value of wood, in fact, can vary
22	substantially over short periods of time?
23	A. Do you mean wood in the same
24	location?
25	Q. Yes.

1	A. No, I don't think I can confirm that.
2	Q. Because you're not sure or you don't
3	believe that that's true?
4	A. Well, the Quirin and Waters study
5	does give an estimate for at least two years, maybe
6	three, and there's not much variation there, and that's
7	the only information I've looked at.
8	Q. All right. Well, can we just take a
9	look at that study then, I believe it was Exhibit 2114,
. 0	and could you turn, please, to it's four pages from
.1	the end of the exhibit, there's no number on it.
.2	Schedule 3, Roman numeral III-18.
.3	A. III-1?
. 4	Q. 18 and it's called Value of Wood
.5	Calculations for Six Major Canadian Pulp and Paper
.6	Producers, 1985.
.7	A. Yes, I've got that.
.8	MR. FREIDIN: Does the Board have that?
.9	MADAM CHAIR: Yes.
20	MR. FREIDIN: Q. Now, as I look at that,
21	and they indicate they looked at six major Canadian
22	pulp and paper producers in '85, and in terms of Item
23 -	No. 8, the net value of wood after stumpage per cubic
24	metre, the mean in 1985 was \$5.03 over in the righthand
25	column, 1987 it was \$18.42, it increased by more than

300 per cent. Is that what you would call a small 1 variation? 2 DR. VICTOR: A. No, but just to be 3 clear, I was referring to Table II-1, if I can refer 4 5 you to that. Is that Roman numeral II? 0. 6 Roman numeral II-1, it's about three 7 8 pages earlier on. 9 0. Right. 10 And it shows the value of wood as 11 \$6.93 for 1985. 12 Where are you looking? 0. 13 I'm sorry, 1985 Ontario. A. 14 Okay. Ontario, yes. Q. 15 A. On the bottom at the \$6.93--16 0. Right. 17 --which is the figure that I had on A. 18 the exhibit. 19 Q. Right. 20 And then next to that is a figure for 21 1986, which is \$7.45. 22 Q. In Ontario? 23 In Ontario. So I wouldn't consider -- that's when I was saying I didn't consider 24 25 that a very significant change.

1	Q. Do we know where any of these
2	particular well, can you provide me some assistance
3	as to what the relationship is between the table you
4	referred to and the table I referred to?
5	Why would we look at one as opposed to
6	the other to determine this issue if the value of wood
7	varies and, if so, by how much?
8	A. Yes, I can help you with that.
9	Q. Yes.
10	A. Table II-1 is the result of
11	calculations based upon the lumber industry and Table
12	III-1(a) and so on is estimates for the pulp and paper
13	industry.
14	Q. So
15	A. And in Table III-1(a) you'll notice
16	that those estimates are right across Canada on a
17	company basis.
18	Q. Right.
19	A. So it's another reason why there
20	would be more variation, because it can vary with the
21	level of activity of the mills in each of the
22 .	provinces.
23	Q. All right.
24	A. And the mix of products.
25	Q. I'm not familiar with this paper. Is

1	there anything in here that indicates how the value of
2	wood per cubic metre would vary for the pulp and paper
3	industry as opposed to the lumber industry in Ontario?
4	A. Not specifically, no.
5	Q. All right. Okay, thank you.
6	Turn to page 6 where you've done
7	estimates of the economic value of timber in Ontario.
8	In relation to the value of timber, Item No. 1, the
9	second item refers to the net social gain. You
10	basically describe it as a net social loss of \$5.54.
11	Could that net social loss equally be
12	described as a social cost that the government has
13	decided that on behalf of the public that they are
14	willing to pay for the economic values and the economic
15	impacts produced through the activity of logging and
16	subsequent processing of the wood fiber?
17	A. Yes, it could be interpreted that
18	way, though I think the purpose of the authors of the
19	study was to bring to the surface, if you like, the
20	amount of this that was being paid.
21	Q. Right.
22	A. So that doesn't necessarily allow us
23	to say it was a conscious decision to do it that way
24	but it is you can interpret the result in the way it

says.

1 Q. Okay, thank you. And if we turn -there was some discussion about stumpage fees. What 2 would happen if they went up or if they went down? 3 Did I understand you correctly that you 4 said that because the companies are in business to make 5 a profit, that not an unrealistic expectation or result 6 of an increase in stumpage might be a decrease in wages 7 paid to the people who are, in fact, working in the 8 9 forest industry? 10 Well, that's -- it could be, but not 11 necessarily. 12 Q. But I think you indicated that the 13 companies would -- I mean, if they had room to move, 14 they might just accept that, but because they're in 15 business they would try to offset additional costs in some means, either through increasing the price of the 16 product, it might be leaving the product the same 17 because markets were competitive and reducing other 18

A. Well, we generally work with the assumption that the firms try to keep their costs down as much as they can in order to maximize their profits, that's the basic assumption that we found useful in economics for understanding how firms behave.

costs such as operating costs which might include

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wages?

1	Now, if these firms have to compete for
2	labour, then they don't get to choose what they pay the
3	labour. An individual firm cannot make they can pay
4	more than the going rate, but it can't pay less, it
5	will lose its staff or it may even have union
6	agreements that prevent them doing so.
7	Q. It might even have union?
8	A. It might have union agreements which
9	would prevent it from reducing wages.
10	Q. Except when you renegotiate those
11	union contracts; is that correct?
12	A. Yes. But, again, then the firm has
13	to each individual firm is not going to have market
14	power which says simply in responce to an increase in
15	stumpage fee it can go and take it off wages. It may
16	just as easily show up as a reduction in profits.
17	Q. And is the likelihood of, or the
18	ability of a company to, in fact, reflect or to deal
19	with an increase in costs through wages greater in a
20	setting where you're dealing with single-industry towns
21	than one where you've got multiple opportunities for
22	jobs, for employment?
23	A. It might be easier in single-industry
24	towns.
25	Q. All right. And the last point here

1	that I wanted to just deal with, the top box here,
2	\$64.97 which is labour.
3	A. Sorry, Mr. Freidin. I would just
4	like to clarify what I've said because
5	Q. Sure.
6	Ayou're raising an interesting
7	question here. If you look at this figure on Figure 5,
8	the way I believe it's intended to be interpreted by
9	the authors, the way I would suggest it be interpreted,
10	is that the price of lumber of \$165.26 is determined in
11	the market, that's not within the control of the mill.
12	Now, if the mill is already doing the
13	best it can to maximize its profits, it will be paying
14	labour as little as it can in the context within which
15	it operates.
16	Now, if you come in and increased
17	stumpage fees, it can't go and pay less for labour as a
-,	
18	result of that; if it could do that, then my previous
19	statement is not correct, that it wasn't already trying
20	to minimize its labour costs.
21	So if it's already trying to run itself
22	as efficiently and cost effectively as possible, an
23	increase in stumpage fee is not very likely to show up
24	as a reduction in wages.

25

Q. But somewhere along the line the

1	company would have to adjust to an increase in cost,
2	whether it's from stumpage or anything else, if they
3	wanted to stay in business?
4	A. The point would come if the stumpage
5	fee went up beyond the \$6.93 on average, it would have
6	to go out of business.
7	Q. And I just seized upon stumpage as
8	one thing, but we can pick any cost factor and the same
9	answers would apply?
.0	A. They would have to adjust, yes.
	Q. Now, just one last area, as I
12	indicated, in relation to this issue of labour. There
13	was a long discussion between you and the Board,
14	particularly Mr. Martel, about whether in fact jobs
L5	which were lost in northern Ontario, particularly the
L6	pulp industry, were in fact replaceable.
1.7	And let's assume for the moment that the
18	determination was that they weren't replaceable, let's
19	assume they weren't replaceable at all, as I understood
20	your evidence, the value of wood would then increase,
21	just using the figures on this particular page, from
22	\$6.93 to the total of that plus \$64.97?
23	A. Yes.
24	Q. Okay. And if the determination was

made that the jobs might be replaced by people going

- and finding alternate employment but at, say, 50 per 1 cent of the wages that they could make in the pulp and 2 paper industry, then the value of wood would increase 3 from \$6.93 to -- you'd add half of \$64.97; is that 4 5 correct? 6 A. That's reasonable, yes. 7 Q. Okay. That's fine, thank you. 8 MR. MARTEL: Why would that increase, you 9 wouldn't be producing wood. 10 DR. VICTOR: No, but if the displaced 11 labour force could find work elsewhere at half the wage 12 rate, then that suggests that by employing -- well, 13 that tells us how much they could then contribute to 14 output in some other occupation. In which case, whilst it would be a 15 16 mistake to take all of the \$64.97 and say that represents a real cost in this situation, it would 17 represent -- it would represent some cost, because if 18 the labour is working here and does have an alternative 19 form of employment, then the use of the labour to 20 produce the wood has to be recognized as a real cost 21 and, therefore, the labour is making a real 22 contribution to the value of the final product. 23 DR. KUBURSI: You see, in economics we 24
 - value the wages by the contribution to output. So the

25

value of the wage is the value of the output they ٦ 2 produce. MR. MARTEL: But if the job is lost ... 3 DR. KUBURSI: But they're saying they Δ found jobs in the alternative. 5 MR. MARTEL: Yes, but let's stick with 6 the jobs in the forest industry. If the jobs are lost, 7 there's no value because there's nothing being cut. 8 DR. VICTOR: No, but the labour, by the 9 assumption that was given to us, is now going and 10 11 producing something else. MR. MARTEL: Yeah, but why is it going to 12 13 drive up the cost of the value of wood? 14 DR. VICTOR: It's not driving -- it's not 15 driving up the value of the wood. This is the 16 interesting thing here. The value of the wood is 17 always a residual because there's no -- we don't 18 actually transact with nature, we don't buy it from 19 nature, so the value of the wood in this kind of 20 activity is what's left over after you take out all the 21 other inputs. 22 MR. MARTEL: Because it stays there it 23 still has some value. 24 DR. KUBURSI: And you subtracted all the 25 opportunity.

1	MR. FREIDIN: Q. And looking at this in
2	economic terms, in economic theory if I can put it that
3	way, the higher the value of the wood, would it be fair
4	to say, the more you could spend on silviculture?
5	DR. VICTOR: A. It's an almost yes.
6	Q. All right. Explain that, please.
7	A. To decide how much you should spend
8	on silviculture you want to look at the incremental
9	value of the wood. In other words, even if wood was
10	very valuable and you were to spend lots of money on
11	silviculture but it didn't increase the value of
12	already valuable wood, it wouldn't make sense to do it.
13	So the important thing is when you're
14	evaluating a silviculture program is to say, if we
15	spend "x" amount of dollars on silviculture will it
16	yield benefits of more than "x".
17	MR. FREIDIN: If I could just have one
18	moment, please, Madam Chair. Thank you.
19	Q. Dr. Kubursi, now I would like to move
20	on to some evidence that you gave today as well as
21	during your evidence-in-chief, and I think it was
22	and it's about this question as to whether you need
23	expertise in terms of socio-economics for every
24	management unit.
25	And I think, Dr. Kubursi, you talked

1	about maybe having sort of a central depository and
2	having assistance in relation to this issue in that
3	manner for each forest management unit.
4	In that regard could you turn to page 9
5	of the Coalition's terms and conditions, Exhibit 1637,
6	please, paragraph No. 9. Do you have that, gentlemen?
7	DR. KUBURSI: A. (nodding affirmatively)
8	Q. The heading is Plan Administration,
9	and the subheading is Planning Team. In term and
10	condition 38 it says that:
11	"The planning team for all forest
12	management units shall comprise a core of
13	six experts with one representative of
14	each of the following concerns", and
15	you'll see No. 5 is socio-economics, and if you drop
16	down to term and condition 40 it says:
17	"All members of the planning team, except
18	for the Chairperson, shall be duly
19	qualified experts with the
20	representatives for ", and go down to 4
21	again:
22	"socio-economics having at least an
23	undergraduate university level degree
24	with a socio-economics specialty and
25	three years of relevant experience."

1	Now, I take it from what both of you have
2	said you aren't supporting a term and condition which
3	is suggesting that you would need a hundred of these
4	individuals because there are a hundred forest
5	management units?
6	Dr. Kubursi, is that a fair
7	interpretation of what you said?
8	MR. O'LEARY: Sorry, which terms and
9	conditions are these again?
10	MR. FREIDIN: 38 and 40.
11	MR. O'LEARY: Can you identify where they
12	appear in the witness statement, Mr. Freidin?
13	MR. FREIDIN: Well, maybe they don't
14	appear in the witness statement, but these two experts
15	have given evidence about having to have this expertise
16	at the planning level and whether they wanted to
17	testify to those two terms and conditions or not, I
18	think it's quite relevant and arises directly from
19	their evidence.
20	So if you're asking the Board to make a
21	ruling that they shouldn't deal with it because they
22	didn't say they wanted to talk about it, I would ask
23	the Board to overrule your objection and allow me to
24	ask the question.
25	MR. O'LEARY: Madam Chair, if they feel

1	qualified to answer. I'm just suggesting that these
2	are not terms and conditions that are identified in the
3	witness statement as being areas that they were going
4	to give evidence on, and it may be that these witnesses
5	are not in a position to respond to that question.
6	MADAM CHAIR: Well, let's try, Mr.
7	Freidin, put the question to the witnesses.
8	MR. FREIDIN: Q. Okay. Do you want me
9	to repeat the question, Doctors?
LO	DR. KUBURSI: A. Please.
Ll	DR. VICTOR: A. Yes.
L 2	Q. I understood from your evidence that
L3	you don't feel that it is necessary that there be a
L 4	requirement that for every planning team that there be
15	a specific person with socio-economics experience or
16	the ability to do the kinds of analysis you spoke of to
17	sit on every you wouldn't need a hundred of those
18	individuals on the basis there were a hundred FMUs.
19	DR. VICTOR: A. I think I was the person
20	who suggested that it may be unnecessary to have a
21	hundred of them, yes, that's true.
22	Q. Okay. But I understood from your
23	evidence you believe that it's important that some
24	input be provided by someone with the understanding of

these sort of techniques for each timber management

1	plan?
2	A. Yes, that's true.
3	Q. All right. I'm just trying to be
4	fair to both of you.
5	A. Yes.
6	Q. Now, we go to 4, it says:
7	this person, whether it's an individual for every
8	forest management unit or whether it's the person who
9	in fact is the same person who goes around from
10	management unit to management unit to sit on different
11	planning teams, term and condition 40 says that that
12	person should be qualified for, and it says:
13	"socio-economics having at least an
14	undergraduate university level degree
15	with a socio-economics specialty and
16	three years of relevant experience."
17	I'm not aware of any degree in
18	socio-economics; are you, and if regardless of your
19	answer, what does that mean to you, someone who has a
20	university level degree with a socio-economics
21	speciality?
22	DR. VICTOR: A. Well, it's a term that's
23	become common in this it's become a fairly common
24	usage the term socio-economics. I might agree there's
25	a Bachelor of a Social Science. Perhaps I'm as close

1	to a socio-economist as you might find in terms of
2	formal qualifications, but I think what this refers to
3	to and, you know, to be well, it is not a term and
4	condition that I gave particular forethought to, though
5	it wasn't one of the ones that I was adopting, but
6	it what it says is that you want somebody who has
7	got a university degree in economics, is aware of some
8	of the social, particularly social dimensions of the
9	economy, I think that's what socio-economics refers to,
10	and has had three years of experience.
11	DR. KUBURSI: A. If I may add, Mr.
12	Freidin, here I know at McMaster, I can speak for
13	McMaster, we are moving now increasingly into a core of

Freidin, here I know at McMaster, I can speak for McMaster, we are moving now increasingly into a core of social science to be the basis of any degree in economics. We've increased the number of units to about a third courses in the core social science, and I presume this really refers to somebody either in sociology with a very strong emphasis on economics, or maybe in economics with a fair emphasis on course in social science.

Q. And three years of relevant experience. You may not be able to provide any light on what that really means in the context of this particular proposed requirement.

If you can, fine; if you can't, that's
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1 fine as well. 2 DR. VICTOR: A. No, I'd leave that. 3 DR. KUBURSI: A. Yeah. 4 Q. Fine, thank you. 5 In relation to the provincial parks 6 model, Dr. Kubursi, it's my understanding that that particular model is used for making decisions regarding 7 the provincial allocation of funds, that is its major 8 9 purpose. 10 A. I would not really describe it to be 11 particularly just an allocation. 12 In terms of its use, my understanding 13 is that that in fact is its primary use? 14 A. It can be used. 15 Are you able to -- are you familiar 16 enough with what the Ministry uses that for or has used 17 it for to be able to comment one way or the other on the suggestion that its primary use is indeed for the 18 19 purpose of allocation of budget? I've worked very closely with the 20 people in the parks division and who have used it and 21 we've been in frequent contact, and I think I'm aware 22 of the context within which this model has been used. 23 All right. 24 0. A. But I won't say it's solely used for 25

- budget allocations, it's also used for socio-economic analysis of the impact of visitor expenditures on the parks in a relative manner.
- Q. All right. Are you able to comment
 on whether it is used at the local level, at the park
 level for assessing alternatives as opposed to used for
 the purposes of just demonstrating what the economic
 impacts are of the expenditures which have, and the
 activities which have been decided upon?
- 10 A. I would say more the latter than the li first.
- 12 Q. Right. It's not used for the 13 purposes of -- all right. And what specific 14 information do you have regarding the extent to which 15 it is being used for any purpose? And the reason I ask 16 you that is because you made the comment that, or if 17 you didn't make the specific comment, I got the 18 impression that you were suggesting that it is used 19 routinely because I think you said something along 20 those lines. What information do you have as to how 21 frequently it indeed is used?
 - A. I said routinely. When I mentioned routinely, in the sense that not only at the Ministry of Natural Resources, that this model is continously used in several ministries.

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1	I know, for example, Ministry of Tourism
2	and Recreation produces several reports that use this
3	model. I know that now in the Ministry of
4	Transportation under direction of the minister that in
5	no contract or bid they would accept unless there is an
6	estimate of the employment implications of each single
7	company.
8	Q. Right. But the use, what you're
9	talking about in terms of these other ministries, is
10	the use of an economic impact model as opposed to use
11	of the specific parks model; am I correct?
12	A. Yes.
13	Q. Okay, thank you.
14	You made a comment during your evidence
15	regarding the Algoma study and you indicated - this is
16	Exhibit 2119, which you don't have to look at - you
17	indicated there were 25 participants, and that you
18	asked the 25 participants to provide financial
19	statements. And my notes may not be accurate, but I
20	believe you said that the people - I think you were
21	referring to the tourist operators - are usually
22	zealous in protecting information. Is that what you
23	said?
24	A. Yes.
25	Q. And could you explain to me what that

1	means and wha	at .	implications	that	has for	using	that
2	information .	in a	a planning p	rocess	which	is publ	lic?

A. Right. It's my experience that when you ask financial statements from business people that they usually are very reticent, unless they are aware and they are involved in the consequences of the planning process.

And this serves -- this exact exercise in Algoma and Upper Spanish Forest served to indicate that once people are involved and they have the stakes that they're willing to supply very privileged information.

I was involved in the original NOTOA study and we tried to get in general results and we didn't get very much, but when it came to a particular project, a particular area in which they were threatened or felt threatened or were called upon to put inputs in a planning process, they were very much happy to do so and did indeed. 88 per cent rate response was unachieved and is unachieveable generally.

Q. All right. Were there any precautions taken in those situations to keep the information which they willingly gave confidential in the sense that it wasn't going to be made available to the generally populace for their review or their comment?

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A. There were -- you know, every effort was made to keep these things confidential, but indeed there are parts of the report, as you see now it has being public. The information itself as input had to be kept separate so we don't identify any particular operator, but the aggregate results are indeed public as the Ministry has made available this report.

Q. All right. Now, the reason I asked the question, Dr. Kubursi, is that I was thinking of sort of a situation that does arise from time to time in timber management plans where there's a specific operator and a specific road to use a hypothethical, and both of you have made suggestions as to how that might in fact be addressed, and particularly using economic approaches, whether it's valuation or impact assessments, and the timber management planning process is an open process and it's a public process where -- parties have said it's a public process and, you know, we've got to make these tradeoffs very clear and we've got to make it traceable and replicable and understandable and those sorts of things.

And if what you're suggesting is that a financial analysis which is made for the purpose of making a tradeoff decision — if you make the tradeoff decision based on financial information involving the

Victor, Kubursi cr ex (Freidin)

tourist operator, based on your experience, Dr. 1 Kubursi, how confident are you that there would be no 2 problem in making that information public? 3 And I'm saying, the public can sit there 4 and say: Look, you're spending public money and you're 5 going to do this or that and if you're going to make 6 7 that tradeoff decision based on this financial analysis, we want to see that information about that 8 tourist operator. 9 10 Based on your experience, do you think 11 that's going to be a problem? 12 A. I appreciate the situation that you 13 are putting forward and I here I quess sensitivities 14 are to be respected, but it is possible to still 15 generate this data from expenditure aggregate that 16 could be revealed without having to go to the extreme 17 details of how these expenditures have been made and 18 the calculations have been carried out. 19 Q. So this is something that would have 20 to be addressed and addressed in a fairly sensitive 21 manner? 22 In a sensitive manner, yes. 23 Okay, thank you. Q. 24 MR. MARTEL: Can I ask a question. How do you do it with, let's say, one remote operator, he's 25

1	off there by himself and the second I mean, there's
2	just nobody else, you can't aggregate it, and you're
3	trying to make a decision on, you know, whether you
4	follow this route or that route and you really need the
5	economics maybe to look at it, that's going to become
6	public and many of the times in these hearings, and in
7	this planning, it's people who have a concern that show
8	up at the meeting, and I just don't know how you're
9 .	going to get around it, because I'm not sure you can
10	I can understand in a study like you did where you can
11	aggregate it, but what do you do with the remote guy,
12	or two tourist operators on a fairly large lake,
13	operating on the same lake?
14	DR. KUBURSI: All right. I recognize
15	there would be difficulties.
16	MR. MARTEL: How do you do it.
17	DR. KUBURSI: I will report only the
18	employment and I would refrain from putting every
19	single number on the table. I'm sure they would be
20	more than happy to brag about the number of jobs that
21	they are being able to provide, but I would certainly
22	be sensitive about providing the revenues.
23	MR. FREIDIN: Q. But the number of jobs
24	might not be the basis on which the tradeoff decision
25	was made, it may be that there were a lot of other

1	I'm not saying I've got a solution to this problem, I
2	just have the opportunity to ask you the question
3	because you've done so much work in the tourism
4	industry.
5	And given the planning process that's
6	being discussed here, how do you if you've got any
7	ideas how you deal with that, I would certainly like to
8	hear them.
9	DR. KUBURSI: A. Well, the idea is to be
LO	very sensitive, but also I feel there are aspects,
.1	impact aspects, not perhaps total as one would like
.2	them to be, that you can still reveal and are routinely
L3	revealed.
1.4	Q. Thank you. During your demonstration
15	of the model or of a model let me step back for a
16	minute. You indicated there were four sort of
L7	categories of tourism, you know, U.S. visitors, local.
18	A. Yeah.
19	Q. Overseas.
20	A. Mm-hmm.
21	Q. Other provinces.
22	A. Right.
23	Q. And I don't remember, where did
24	expenditures from local residents sort of fall within

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the hierarchy?

1	A. When we say local, we mean Ontario
2	residents.
3	Q. If that's all right, Ontario
4	residents.
5	A. Yes.
6	Q. Where did that fall in the hierarchy
7	of, you know, one to four in terms of most money, I
8	guess, most dollars, the biggest multiplier.
9	A. Well, these two are separate issues,
.0	but let me comment on them separately, they're both
.1	relevant.
.2	The largest amount of tourist dollars
.3	comes from Ontario residents, that's true. The per
4	dollar impact, and this is the multiplier, you'll find
.5	quite a bit of variation here, the largest doesn't come
.6	from the Ontario residents, it comes from other
.7	provinces.
.8	Q. The sum of the calculation is part
.9	of the calculation of expenditures on tourism in the
20	north based on expenditures that northerners make in
21	those categories which are the subject matter of data
22	collection?
23	A. Part.
24	Q. Would it be a small part in terms
25	of in terms of the I guess we're looking at, you

know, restaurants and motels and tourist operators and 1 fishing experience and all those kinds of people, gas. 2 Any idea what percentage of the Ontario contribution is 3 made up of people who live in the north? 4 When you say live, it becomes very 5 important. 6 7 All right. Don't have to travel more 0. 8 than --50 miles for the Canadian survey and 9 Α. 25 miles for the Ontario one. I would say that this 10 really depends on particular -- if you give me time, I 11 12 can give you exact numbers. 13 Can you give me a ballpark? 14 No, I wouldn't dare. 15 MR. MARTEL: Can I ask a question on 16 that, because I think it's long bothered us from the 17 beginning of this hearing, is how do we know the true 18 value of the tourist industry in northern Ontario when 19 half the people who travel to work, I would venture to 20 say at least half, travel that distance daily. 21 I mean, if you work in a mine you travel 22 great distances to work, and that's part of the 23 calculation, I presume, based on the fact that it takes

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anybody travelling over 25 miles a day, and very few

people don't travel that far.

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1	If one looks at Sudbury, I mean, you go
2	from Garson to Copper Cliff or you go from Levac to
3	Chelmsford, and that's just the Sudbury example. And
4	just how skewed are those figures by that fact, or is
5	there another way that we should be - and we heard this
6	right at the beginning of this process, that we can't
7	really get a good handle on what the real worth of
8	tourism is in the north.
9	DR. KUBURSI: Fortunately, I mean what
10	you're asking, Mr. Martel, is very relevant, but
11	fortunately we have in these surveys several other
12	questions that allows us to what we call cross-classify
13	and weed out.
14	We ask people the purpose of the trip,
15	was it for business, for pleasure, for visiting
16	friends, so you can, if you really want to, delimit and
17	focus on only those trips that are outside the regular
18	travelling business.
19	MR. MARTEL: Is that being done though?
20	DR. KUBURSI: And it has been. I mean, I
21	know when I deal with things I try to weed out some of
22	these other expenditures and we have something we call
23	sometimes attribution index.
24	In the sense that I'm looking at the
25	particular impact of, say, Old Fort William in Thunder

1	Bay. I don't want to include in that impact anybody
2	who just visited the place. We tend sometimes to have
3	what we call the attribution index of the total number
4	of visitors who have come to Thunder Bay as the primary
5	target and travel plan.

And all these possibilities exist because the travel surveys, whether that of Ontario or that of Canadian one, ask numerous questions and these come to be at the forefront.

MR. FREIDIN: Q. And you talk about tourism and the numbers for tourism. I mean, I went to Thunder Bay every week for two years, and so did a lot of other people in this room, all the money we spent there would show up as tourism dollars.

If you surveyed me and said: What did you come here for, I came here for business. How much did you spend and I told them, and how far did you come, I said all the way from Toronto, would I be in the stats for tourism?

DR. KUBURSI: A. You would be in the stats for travellers, but we can easily eliminate you when we come to tourism because your primary objective was not coming for pleasure or for visiting friends but came for business.

Q. So the numbers that we see produced Farr & Associates Reporting, Inc.

- under many of these reports about tourism dollars 1 exclude the visitors who fall in my category and only 2 reflect those who say they came for pleasure? 3 4 A. Right. I mean, we totally -- of the 5 total, for example, that I've been working with, all the travellers and miles that have been travelled in 6 Ontario, for example, 90 per cent is usually ascribed 7 8 to tourism. 9 Q. Can you break out those tourism 10 figures into tourism generally, the person that goes to 11 Thunder Bay to go skiing from the people who actually 12 come and spend their money on remote tourism, and the 13 spinoff benefits multiple -- you know, where did the 14 money get spent? Yeah, as I said, this is really this 15 A. question that I call the attribution index, where we 16 would likely to classify things, classify trips by 17 their main destination, their main purpose. There are 18 secondary trips that are off the main purpose. 19 20 O. All right. These would be included under the 21 general dissertation, but would not really be totally 22 attributed to that place because the trip did not 23 originate on account of this. 24
 - Q. Right. But it seems to me that most

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1	people who would go and take advantage of a remote
2	tourist facility, that would probably be their primary
3	purpose for coming into the area?
4	A. Yeah.
5	Q. And are you able to withdraw from the
6	statistics that are produced in relation to tourism
7	what proportion of those total tourist dollars can be
8	attributed, in the way you use that term, to remote
9	tourism?
10	A. Yeah. I mean the surveys are very
11	extensive and remote tourism is one of the
12	classifications.
13	Q. All right. So you can pull that out?
L4	A. I can.
15	Q. But the number all right, thank
16	you.
17	Dr. Victor, you there's one comment in
18	your witness statement about existence values that I
19	want to ask you about. Let me see if I can find the
20	page. Page 16, Answer 26.
21	DR. VICTOR: A. Yes.
22	Q. And page 16, Answer 26:
23	"Can you give examples of non-use value?"
24	And you said:
25	"Yes. The most important category of

1 non-use value of a forest is commonly 2 referred to by economists as existence 3 value." 4 Now, existence value is a non-use value? 5 A. Yes. 6 Q. Why did you say that that it, existence value, was the most important category of 7 non-use values as you -- why did you say that, why did 8 9 you rank it like that? 10 A. Well, I think I say elsewhere in the 11 witness statement that the classification of the 12 components of value has not finally been settled upon by economists. 13 14 Q. Classification being ranking? 15 No, no. Classification, you've A. 16 probably heard terms like existence values, bequest 17 value, option value, quasi-option value. I mean, there's a lot of terms that are used. Existence value 18 is sometimes interpreted broadly to mean any non-use 19. value, in which case it really becomes the only 20 21 category. Some people distinguish between existence 22 value and option value; in other words, the value to 23 them of keeping an option open so that they can make 24 some use of it in the future. 25

1	So my comment here is, I'm afraid it
2	perhaps isn't as precise as it should be and maybe if I
3	had spelled it out this way in the witness statement it
4	would have been clearer, but
5	Q. How should we read it?
6	A. I think you should read it as it's
7	stated that there is this well, you should read it
8	as follows: There is, in my view, a value that people
9	attach to the existence of natural resources, in this
1.0	case forests, which have no relation to their current
11	use or future intended use, and that that is, in some
12	cases, an important component of value. That's what
13	I'm saying.
14	Q. Okay. You're not putting any
15	you're not ranking it as the least important, the most
16	important, medium importance, it's just a comment that
17	you just made?
18	A. It is important, that's what I'm
19	saying.
20	Q. Thank you. You also in your evidence
21	referred to the Tongass Forest.
22	A. Yes.
23	Q. And you referred to that in page 17,
24	Answer 30. The Board asked for a copy of that

25 particular report. You were asked an interrogatory

1	about that, it's Interrogatory No. 11, and you'll find
2	that at page 7 of Exhibit 2111. Do you have that?
3	A. Yes.
4	Q. And the question you were asked
5	was you indicated that a classification system of
6	economic values, specifically for application to
7	forestry, has been developed by those particular
8	authors for the Tongass Forest.
9	And we asked whether you agreed that:
10	"the work of Randall, Holman and
11	Swanson is a conceptual framework only
12	and that research is necessary to deal
13	with the issues identified in that
14	framework before it can be actually
15	applied, before it can actually be
16	applied in the Tongass Forest and, if
17	not, why not?"
18	You said:
19	"No."
20	You say:
21	"As well as setting out a conceptual
22	framework, they recommend the operational
23	application of the three generic
24	valuation methodologies described."
25	Now, again

1	MR. FREIDIN: Was that marked as an
2	exhibit.
3	MADAM CHAIR: The interrogatories?
4	MR. FREIDIN: No. 2126 was the
5	Q. Now, the three methodologies which
6	you say the three methodologies which you say that
7	they say there should be operational application of,
8	which ones were they?
9	DR. VICTOR: A. Certainly includes the
L 0	travel cost method and the contingent valuation method.
11	I'm just going to check to see what the third method
12	is. I think it's the hedonic price method.
13	Q. Okay. Now, will you turn to page 10
14	of that particular exhibit, please.
15	A. Yes.
16	Q. And under Approaches to Valuation
17	Research, page 10.
18	A. Yes.
19	Q. Under the heading, Approaches to
20	Valuation Research, the authors state:
21	"In this section we outline briefly some
22	viable approaches to valuation of the
23	recreational, visual, habitat and quality
24	of life benefits in the Tongass National
25	Forest. The purpose is to suggest a

1	program of research to generate valid
2	estimates of total value and component
3	values."
4	A. Yes.
5	Q. Now, what do they mean? Are they
6	saying that some research is needed generate valid
7	estimates which could then be used in the three
8	methodologies that you described; is that what they're
9	saying?
10	A. No.
11	Q. What does this mean then?
12	A. I'll have to give you perhaps a more
13	complicated answer than you would like.
14	Q. And, as I say, the reason I'm asking
15	it it is because I've read the document and I get the
16	sense that it is setting out a framework for research,
17	and they're saying that we've got to do some work to
18	generate valid estimates, and although they're
19	providing a framework and they say use these
20	methodologies that you've talked about. You know,
21	that's the way I've interpreted it.
22	And I would like some clarification as to
23	whether I've completely misinterpreted the document,
24	which won't be the first time if I have.
25	A. When economists got into the business

1	of estimating non-use values no, not non-use,
2	non-timber values, let's say, recreation, tourism, what
3	they did was to develop methods of estimating sort of
4	pieces of the total. So, in other words, while I think
5	we all recognize that the non-timber values of the
6	forest consist of more than just the recreation values
7	or even the angling value, you know, angling, hunting,
8	it can include the value that we've talked about as
9	existence value, it can include the value people might
10	have just to leave something for the future and so on.
11	Q. So it has more than just use value,
12	it has non-use value as well?
13	A. Exactly. So a lot of the work
14	focused on particular components, and then people began
15	to ask quite reasonably: Well, what's the total
16	picture we're looking at, what's the total value.
17	And in this study they've tried to
18	establish a framework, a logical consistent framework
19	that allows you to identify the total value and, within
20	that, the component values.
21	Q. Right. So that they were addressing
22	what hadn't been addressed before to any great extent
23	and that was the issue of non-use values?

A. No, it had been addressed before but it hadn't necessarily been addressed in an entirely

24

25

1	consistent way.
2	Q. All right.
3	A. Now, the and so that's what makes
4	this paper interesting, is that they've tried to lay
5	out a consistent framework, but the reason why I
6	responded to the interrogatory in the way I did, that
7	it goes further than just setting out a conceptual
8	framework, is that if you turn to page 13, there's a
9	paragraph there, second paragraph which says:
10	"Several studies to estimate various
11	activity values"
12	Q. Let's me just
13	A. I'm sorry second paragraph on the
14	second column of page 13.
15	Q. On the righthand side.
16	A. Yes.
17	Q. Okay, I have it.
18	A. "Several studies to estimate various
19	activity values have been completed, are
20	underway or may be initiated and
21	completed in the short term. These
22	studies will provide much of the benefits
23	data for short-term planning."
24	And then it goes on to explain that:
25	"These studies will be undertaken by

1		forestry service research staff and the
2		staff of cooperating agencies because
3		external contracts are already in
4		process."
5		And then they mention three particular
6	studies that	are underway and which I can tell you in
7	at least one	case has been completed.
8		They commented after Item C:
9		"These studies have not been designed
10		according to the valid evaluation design
1		recommended here. For the short-term
12		planning effort it is unlikely the
L3		complete and empirical estimates based or
L4		the valid evaluation design will be
L5		available."
L6		I think this is the next sort of
17	important sen	tence:
18		"For some benefit estimation tasks these
19		activity value studies will generate the
20		best or the only results usable in the
21		short term."
22		Now, I think it's a fair interpretation
23	of that sente	nce, or that paragraph, to say that they
24	take the view	that these results should be used in the
25	short term, a	nd that was why I said that this is more

1	than just a s	tatement saying that research should be
2		t, the last paragraph that's there is very
3	well worth rea	
4		"I think that for the longer term these
5		studies and their successors will produce
6		activity values that we are optimistic
7		can be routinely used in valid benefit
8		estimation for policy and management
9		proposals."
10		Q. All right. The conclusion goes on
11	and it states	•
12		"The report is introduced as a conceptual
13		framework for benefits research."
14		In the first paragraph:
15		"This report is discussed in unmarketed
16		benefit evaluation procedures currently
17		in use has introduced a conceptual
18		framework for benefits."
19		A. Yes.
20		Q. At the end, the last three lines:
21		"The conceptual and methodological
22		development that will flow from this
23		plan of research in the Tongass National
24		Forest may eventually receive wide-spread
25		application in forest management

1	planning."
2	A. Yes.
3	Q. So at least there is no
4	regardless of what has been developed there, or to the
5	extent that it's been developed, there's no decision
6	that, in fact, this particular model will be used for
7	large application, it may, but there has been no
8	further decision in that?
9	A. No, but in the meantime we do know
10	from the other evidence that I've put in that valuation
11	estimates are being used in forest management planning
L 2	in the U.S.
13	What this study is about I mean, it
1.4	is, if you like, call it if you want, a frontier study
15	It's a study which says: Look, you know, our ideas,
16	our understanding of the issues is evolving and
17	improving and they are still improvements to be
18	expected, but that's to say, of course, that there
19	aren't estimates of value that are already being used
20	in forest management planning in the United States.
21	Q. What do you mean by frontier study?
22	A. It's a study where the authors are
23	trying to help all of us develop our understanding of
24	these issues.
25 .	Q. Okay.

1	A. In that sense, it's at the frontier
2	of the discipline.
3	Q. All right. Does the phrase
4	piece-wise independent valuation mean anything to you?
5	A. Yes.
6	Q. What does it mean?
7	A. Well, I think it refers to what I was
8	saying before, that is estimating components of
9	non-timber values, item by item, piece by piece.
10	Q. And is that what this study attempted
11	to deal with, to develop a framework in fact to get
12	around that and to look at things together, to look
13	the, like, the total value and the component values
14	together in some way?
15	A. That's the issue that they've
16	addressed, yes.
17	MADAM CHAIR: But don't you agree, Dr.
18	Victor, as we discussed yesterday or the day before, at
19	the end of the study they're still left with their
20	environmental account ledger being empty.
21	There are words there describing
22	narratively how important a value might be, but there
23 -	is no valuation given to it in any way that makes it
24	comparable to visitor days or other economic
25	valuations.

1			DR.	VICTOR:	No,	no,	1	think	pernaps
2	that's	a	misinter	pretation	here	e .			

MADAM CHAIR: And you refer to that as being the multiple account approach.

DR. VICTOR: No, no, no. The situation I see is this. The easiest service of the forest that we can put an economic value to is the timber, that's the easiest one. If it's traded we just look at the market price; if it's not traded, we've seen that you can still make some estimates of that. Now, that's that service.

Now, in timber management planning very often we're trading off the different services or we're looking at ways to promote the output of services.

Now, what has happened in the last 30 to 40 years of applied economics is that we found ways of estimating parts of the other values, the recreational value. A lot of those can now be estimated in ways that are comparable; in other words, we're not shifting things from that list you've alluded to of all the things we can't quantify, we're moving some over and we're moving more and more of them over, and I believe that we've reached the position, without doubt, that we can handle a lot of the recreational values in dollar terms.

And so we can make the direct comparison

- between the value of the forest for producing timber or 1 for recreation, and I do insist that it's not always a 2 tradeoff, it may be that an access sex road will help 3 stimulate both. So that information and those 4 5 estimates can be used. 6 That's not to say that we've moved everything into that side of the ledger, but this paper 7 I think is useful for showing that the work is ongoing, 8 that attempts -- there's an enormous amount of interest 9 10 in this area of activity in Canada as well as in the 11 U.S. where the work is progressing, and I think we have 12 very much reached the stage where we can now draw upon 13 this kind of work in timber management planning. And in a sense, that's all I've been here 14 to say to you. That's what I've come to say, that we 15 16 can now use this. MADAM CHAIR: Mm-hmm. 17 DR. VICTOR: But, no, you're absolutely 18 right, we haven't got it to the point where everything 19 is put in the same metric, which would make life a lot 20 easier. No, we haven't reached that point yet, but we 21 can do a lot of it. 22 . 23
 - MR. FREIDIN: Q. The approach that was used in the Tongass Forest, as you described it, you took me to a certain portion on page 13, is that -- you

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described what they're doing there in terms of what 1 they've been able to do to that point in time - is that 2 an example of piece-wise independent valuation? 3 DR. VICTOR: A. Can you give me the 4 5 question again, please. Okay. In the Tongass Forest report--6 0. 7 A. Yes. --page 13, you took us to certain 8 9 portions on the righthand column. 10 Α. Yes. 11 And indicated that they had done some studies, they hadn't really looked at everything, but 12 13 they decided that they would make certain estimations 14 based -- they made some estimations. 15 Α. Yes. 16 And is what is described there, does 17 that in fact -- is that an example of piece-wise independent valuation? 18 19 A. Yes, I think so. I mean, if you 20 found the part in the report where they refer to 21 piece-wise independent valuation--22 Q. I don't think they do refer to that 23 phrase. 24 A. -- I would be able to agree. Oh, they

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don't, eh?

that what you've referred to, in fact, is an example of a piece-wise independent valuation? A. I think so, yes. Q. All right. I would like to refer you to a document, it's a 1991 publication, it's entitled Measuring the Demand for Environmental Quality, it is authored — it's edited by Braeden. The author of the article I'm going to refer you to is Allan Randall, the same person who authored Exhibit 2126, and I'll just give you one excerpt — one page of that, page 321. You have the book there? A. I think so. Q. Okay. A. Maybe I don't. What page is it? Q. Page 321. A. 321. Q. 10.5 Conclusions. No, this particular exhibit that I gave the Board and everyone else has on the lefthand side nineteen eight with a blank, but can you confirm for me that the document win fact published in 1991?		
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A. I think so, yes. Q. All right. I would like to refer year to a document, it's a 1991 publication, it's entitled measuring the Demand for Environmental Quality, it is authored — it's edited by Braeden. The author of the article I'm going to refer you to is Allan Randall, the same person who authored Exhibit 2126, and I'll just give you one excerpt — one page of that, page 321. You have the book there? A. I think so. Q. Okay. A. Maybe I don't. What page is it? Q. Page 321. A. 321. Q. 10.5 Conclusions. No, this particular exhibit that I gave the Board and everyone else has on the lefthand side nineteen eight with a blank, but can you confirm for me that the document win fact published in 1991?	2	concept, I take it from your answer, that you believe
A. I think so, yes. Q. All right. I would like to refer you to a document, it's a 1991 publication, it's entitled Measuring the Demand for Environmental Quality, it is authored — it's edited by Braeden. The author of the article I'm going to refer you to is Allan Randall, the same person who authored Exhibit 2126, and I'll just give you one excerpt — one page of that, page 321. You have the book there? A. I think so. Q. Okay. A. Maybe I don't. What page is it? Q. Page 321. A. 321. Q. 10.5 Conclusions. No, this particular exhibit that I gave the Board and everyone else has on the lefthand side nineteen eight with a blank, but can you confirm for me that the document win fact published in 1991?	3	that what you've referred to, in fact, is an example of
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A. I think so. Q. Okay. A. Maybe I don't. What page is it? Q. Page 321. A. 321. Q. 10.5 Conclusions. No, this particular exhibit that I gave the Board and everyone else has on the lefthand side nineteen eight with a blank, but can you confirm for me that the document with fact published in 1991?	12	give you one excerpt one page of that, page 321.
Q. Okay. A. Maybe I don't. What page is it? Q. Page 321. A. 321. Q. 10.5 Conclusions. No, this particular exhibit that I gave the Board and everyone else has on the lefthand side nineteen eight with a blank, but can you confirm for me that the document with a in fact published in 1991?	13	You have the book there?
A. Maybe I don't. What page is it? Q. Page 321. A. 321. Q. 10.5 Conclusions. No, this particular exhibit that I gave the Board and everyone else has on the lefthand side nineteen eight with a blank, but can you confirm for me that the document with fact published in 1991?	14	A. I think so.
Q. Page 321. A. 321. Q. 10.5 Conclusions. No, this particular exhibit that I gave the Board and everyone else has on the lefthand side nineteen eight with a blank, but can you confirm for me that the document with a in fact published in 1991?	15	Q. Okay.
A. 321. Q. 10.5 Conclusions. No, this particular exhibit that I gave the Board and everyone else has on the lefthand side nineteen eight with a blank, but can you confirm for me that the document with a in fact published in 1991?	16	A. Maybe I don't. What page is it?
Q. 10.5 Conclusions. No, this particular exhibit that I gave the Board and everyone else has on the lefthand side nineteen eight with a blank, but can you confirm for me that the document with a in fact published in 1991?	17	Q. Page 321.
particular exhibit that I gave the Board and everyone else has on the lefthand side nineteen eight with a blank, but can you confirm for me that the document with a in fact published in 1991?	18	A. 321.
else has on the lefthand side nineteen eight with a blank, but can you confirm for me that the document with in fact published in 1991?	19	Q. 10.5 Conclusions. No, this
blank, but can you confirm for me that the document was in fact published in 1991?	20	particular exhibit that I gave the Board and everyone
23 in fact published in 1991?	21	else has on the lefthand side nineteen eight with a
	22	blank, but can you confirm for me that the document was
the best was published in 1991	23	in fact published in 1991?
A. Yes, the book was published in 1991	24	A. Yes, the book was published in 1991,
25 yes.	25	yes.

Q. All right. And the article by 1 2 Randall --MR. O'LEARY: Do you happen to know what 3 the date is? 4 MR. FREIDIN: The actual date in 1991? 5 MR. O'LEARY: No. It says 1980 6 something. 7 MR. FREIDIN: No, no, that's the sequence 8 number. No, actually at the bottom of this page here, 9 10 if you've got a properly xeroxed copy, it's got 1991 right below this little crest. 11 MADAM CHAIR: What did you say the 12 exhibit number was, Mr. Freidin? 13 14 MR. FREIDIN: There isn't an exhibit 15 number. I'm asking that it be made an exhibit. So it 16 will be an excerpt from this document, page 321, which is an excerpt of a paper by Allan Randall entitled: 17 18 Total and Non-Use Values, it actually comprises Chapter 10 of his book. 19 20 MADAM CHAIR: And the book itself is not 21 an exhibit? 22 MR. FREIDIN: The book is not an exhibit. 23 DR. VICTOR: It's in the bibliography to my evidence. 2.4 25 MADAM CHAIR: Thank you, Dr. Victor.

1	This be Exhibit 2127.	
2	EXHIBIT NO. 2127:	Excerpt from book entitled: Total
3		and Non-Use Values, authored by Allan Randall comprising Chapter
4		10.
5	MR. FRE	IDIN: Q. In the section on
6	conclusions. Dr. Vic	tor
7	DR. VIC	TOR: Yes.
8	Qi	f we look at the first paragraph,
9	three lines up from t	he bottom, the first paragraph, it
10	says:	
11	"The re	searcher is still faced with the
12	ambigui	ty about correct methods of
13	evaluat	ing non-use benefits. What is
14	known a	nd not known about these methods
15	is summ	arized below", and No. 3 is the
16	one I want you to com	ment on. It says:
17	"Piece-	wise independent valuation is a
18	common	procedure and it has the virtue of
19	permitt	ing some economies in benefit
20	estimat	ion through the use of typical
21	values	for various kinds of use.
22	Unfortu	nately this procedure is
23		ing with respect to both total
24		nd component values. Allthough
25	some re	searchers are developing

procedures that will use piece-wise 1 independent data for approximating valid 2 benefit evaluation, as yet none exist." 3 I don't know how to frame the question, 4 but I look at that and I say, it seems to cast some 5 doubt upon a suggestion that, in fact, the methodology 6 is sort of out there and can be used, particularly the 7 one which you described as piece-wise independent 8 valuation. That's what this author seems to be saying. 9 So the question is...? 10

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I understood your evidence by going to the Exhibit 2126 and reading to me what they in fact did you were making some suggestion that there was an example of doing something and that we should do that. You also said that that is an example of piece-wise independent valuation.

I read this comment by that author, it seems to say that it's misleading to do piece-wise independent valuation. So I'm putting at its grossest level and this author, if these words sort of have a meaning to a normal individual, seem to say: Don't do it, whereas you've taken the article 2126 said: Do it.

And I may be putting it at too gross a level when there's a finer point to be put on it, and can you help me out?

1	A. Yes, I think I can.
2	First of all, I think you have to
3	appreciate the kind of book this is. It's a good book,
4	that's why I included it in my bibliography, but it is
5	a book written for the theorist and researcher in this
6	area and I'm sure if you've flipped through even some
7	of the pages of this article you'll see that it's
8	there are strings of equations there that probably
9	don't make a lot of sense.
10	Q. Right. If you look at 2126, we have
11	the same we have pages and pages of absolutely
12	incomprehensible equations to me.
13	A. Right.
14	Q. So does that mean that this is pretty
15	theoretical too, 2126, because of those?
16	A. It has theory in it, I think so,
17	there should be.
18	Q. Okay.
19	A. Because estimating values without a
20	theoretical base is not going to get you anywhere.
21	Q. Okay.
22	A. So this is a book written for, you
23	know, people very expert in the area. Now, one of the
24	things that economists try to find is, if you like, the
25	analytically correct solution to a problem.

1	Now, we have a theory of how humans value
2	things, a whole it goes back 200 years, I don't
3	know, of human evaluation, utility theory, and what
4	Randall is saying in this paper is that from the point
5	of view of that theory, there's no, as yet,
6	analytically correct way of taking these component
7	estimates
8	Q. Mm-hmm.
9	A and adding them up to get exactly
. 0	the same total estimate. If you had a way of adding
.1	the total non-use value and breaking that down into its
. 2	parts, you might come to a different conclusion than if
.3	you estimated the parts individually and added them up
4	to get the total.
15	And that's the problem he's looking at.
16	It's a very important problem, however, that's not to
17	say that the individual component estimates are
L8	Q. By individual component estimates
L9	you're talking about the estimates of specific use or
20	non-use values?
21	A. Yeah, like angling, okay, or hunting.
22	That's not to say that those estimates are - well, I
23	have to use that phrase - worse than useless.

He's saying, as I read this, that there may well be errors in those individual estimates. We

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don't have the theoretically analytically correct base
to say how large those errors will be, but that's not
to say that faced with a practical decision of how do
you decide between A and B, between various timber
management plans that the kinds of information you get
from these studies isn't helpful.

And I would go one step further than
that. The risk that's always faced in not valuing
non-timber values is that they get an implicit value of
zero. We know they're not zero, so we know that is
wrong. And the efforts - and Randall is one of the key
players in this field - to develop usable estimates,
I'm sure would agree, that it's better to continue
using the individual component estimates that we are
capable of producing, especially when we have specific
information about the area that we're in, than to not
use these values at all.

Because, remember, he's trying to come up with some kind of grand general theory which will deal with all of these difficulties, regardless of the empirical circumstances.

But we may very well know in a particular area that angling is the major activity or hunting is the major activity, and yet that there are no unique features that would have existence value, so we have

got real information in that situation if we can value
gains or losses to angling. I would think that such
estimates would be quite useful and meaningful.

- Q. Who makes that decision, that angling is the only value out there, we don't have to really worry about these other things.
 - A. I didn't say you don't have to worry about the other ones, I said you don't have to worry about errors that might get introduced when you add up the different valuations.

If you say angling is going to count for arbitrarily 60, 70, 80 per cent of the total non-use values, then the error -- and you're going to estimate angling, well the error you're going to introduce when you add the other components to it is not going to be that significant.

DR. KUBURSI: A. And this is always the way you should really look at this is independent step wise adding to a total value. I mean, the issue is not that non-existence value are not important and are not to be considered, but that if you use this step wise you're going to have some difficulty aggregating the components to be equal to the total value if you were to estimate it independently. That's about it.

Q. And if, in fact, you were going to

sort of use the approach that is being worked on by 1 Randall in the Tongass, would it be fair to assume that 2 you'd have to at least look at that framework and see 3 whether it should be tailored to the Ontario setting? 4 5 DR. VICTOR: A. Yeah, I think you would want to take a look at part of those five steps that I 6 laid out. 7 8 MR. FREIDIN: Thank you. Almost 9 finished, gentlemen. The last subject matter I want to ask you about is recycling. 10 11 MADAM CHAIR: Excuse me. How long will 12 you be, Mr. Freidin? 13 MR. FREIDIN: Five, ten minutes, absolute 14 most. In terms of recycling, I'll go back 15 and look at my notes. I got the impression that both 16 of you were suggesting that - and let me say, I'm not 17 saving there's anythinng wrong with recycling, 18 everybody agrees that that's a good thing - I got the 19 impression from your evidence, gentlemen, that you were 20 saying that increased recovery rates in terms of waste 21 paper could have a significant effect on the 22 requirement for roundwood by the various mills in 23 Ontario. 24 Was that the message that you were 25

attempting to deliver, first of all, Dr. Kubursi?

DR. KUBURSI: A. I think the most

important message is that you can't look at 3 environmental aspects without looking at the economic 4 aspects, and that's exactly the kind of message maybe 5 in a reverse way that we're putting here; if you look 6 at recycling, as you said - and I agree with you and 7 8 there's nobody here who would not agree, that is a good thing environmentally to have a clean environment and 9 10 not to dump our waste if we can recover something from it - unfortunately, given the economic conditions that 11 we have now, this recycling, from an environmental 12 point of view, pushed from purely environmental point 13 14 of view, even from the preferences of the public is 15 going to, in the short run at least with certainty, in 16 the long run - Gaines said it beautifully, we're all dead, we don't know, but let's not go that far - there 17 18 are going to be some basic economic dislocations, 19 primarily along three lines.

One, the north will disproportionately lose more jobs than is gained in the south; two, the economies export potential will be compromised, we are tinkering with an industry that has been traditionally export earner and we may, if we push recycling too fast, become a net importer of garbage from the rest of

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the world; three, that it might not really be that 1 far-fetched to expect there will be excess supply of 2 timber as demand wanes down. That's the message. 3 4 Q. All right. A reduction in the demand for timber, does that mean a reduction in the demand --5 6 A. For virgin product. 7 Q. All right. But will there be a decreased demand for products produced by the forest 8 9 industry, be it pulp and paper or lumber? 10 A. Well --11 Q. Let's not talk about lumber because 12 lumber is -- let's talk about pulp and paper now. 13 There's still going to be a demand for paper products; is that correct? 14 This would be inappropriate to look 15 Α. 16 at it this way. Well --17 Q. Because the issue here is pulp and 18 paper made from virgin pulp versus paper products made 19 from recycled fiber, that's the issue. 20 Q. All right. So let's put it this 21 way. You're saying, I think you indicated to Ms. 22 Swenarchuk that there may be a reduction in the amount 23 of roundwood, if one assumes that the export markets 24 which are the primary market of pulp paper coming out

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- of Ontario, that market says we aren't going to accept
 any products unless you've got a certain--
 - A. Per cent.
- Q. --percentage of recycled.

- A. (nodding affirmatively)
- Q. Then if those requirements can't be
 met by the Ontario producers, they're just not going to
 be able to sell their products, so they will stop
 harvesting roundwood because they won't need it any
 more. Is that what you're saying?
 - A. Well, what I'm saying is that if they continue to harvest roundwood for this purpose, they won't be able to sell it.
 - Q. Okay. Let's take out of the equation the ability to sell it or not. We have heard evidence, and I'm trying to find out whether there's a contradiction between your evidence and between what other witnesses have said.

Leaving aside the acceptability of the product to the United States market, if one assumes that the markets which exist for Ontario products now continue to exist, I mean the demand is still there and they don't require a certain content of recycled material, let's assume that you in fact can increase the recovery rate of waste paper in this province to a

hundred per cent, do you have any basis on which to 1 indicate what that would mean in terms of a reduction 2 3 in the amount of roundwood which would be required by the mills as furnish to meet that demand? 4 5 A. We have actually some forecasts that's done for us here. I mean --6 7 Q. Is that in the answer to the 8 interrogatory? 9 A. This is part of the -- it's appended; 10 isn't it? 11 MADAM CHAIR: Are you talking about --MR. FREIDIN: MNR 25. 12 13 MADAM CHAIR: Yes. It's the Canadian Pulp and Paper Producers Association. 14 DR. VICTOR: I'm not sure if that's what 15 Dr. Kubursi intended to refer you to. 16 MR. FREIDIN: If I can just have a 17 moment, I want to find my copy. 18 MADAM CHAIR: Mr. Freidin, we are going 19 to have to take a break. We will be back in 15 20 21 minutes. MR. FREIDIN: This is my -- if not my 22 last question, I think it's my second last question. 23 MADAM CHAIR: I think our court reporter, 24 though, needs to --25

MR. FREIDIN: Okay, fine. 1 MADAM CHAIR: All right. Thanks. 2 --- Recess at 3:30 p.m. 3 ---On resuming at 3:45 p.m. 4 MADAM CHAIR: Mr. Freidin. 5 MR. FREIDIN: Sorry, I'm late, Madam 6 7 Chair. 0. Don't ask me to repeat the question. 8 Do you have an answer? 9 DR. KUBURSI: A. I was about to ask you. 10 I'll give the same answer anyways. 11 Q. Oh, you will, regardless of the 12 13 question. Let me just preface it with, am I correct that the recycling -- the use of waste paper in terms 14 of, you know, recycling, it affects the newsprint 15 portion of the forest industry? 16 17 DR. VICTOR: A. Well, it could affect 18 that portion and other portions too, yeah. 19 Q. But it's the newsprint which has the 20 minimum requirements in the United States -- all right. 21 forget the United States. 22 What percentage of roundwood, what kind 23 of reduction in roundwood would you anticipate there being in Ontario if there were no recycled content 24 requirements in the major markets, if in fact you had a 25

1	recovery rate of a hundred per cent?
2	DR. KUBURSI: A. Okay. The issue you
3	single out correctly, in the sense that you need to
4	know what the recovery rate. Let's talk about it from
5	a basis of some number that we have, so it's not really
6	hypothetical. I have here the figures and I'll try to
7	introduce this for the Board. Do they have a copy of
8	it?
9	DR. VICTOR: A. Yes, it was contained in
10	somebody's evidence, not ours.
11	DR. KUBURSI: A. Yes. It's the Canadian
12	Pulp and Paper Association.
13	MADAM CHAIR: Which page, Dr. Kubursi?
14	MR. FREIDIN: It's attached as the answer
15	to 25.
16	MADAM CHAIR: It's attached as part
17	Exhibit 2111, 25 and 27. Part of the interrogatories.
18	MR. HANNA: No, Madam Chair, this is from
19	Panel 17's evidence I believe, Mr. Duncanson when he
20	came back and gave evidence to the Board on recycling
21	and this is an exerpt from that, it's page 58.
22	MR. O'LEARY: I believe Table 4.
23	MR. HANNA: From that witness statement.
24	MR. FREIDIN: Q. Well, that's the only
25	copy we have in the room, so

1	DR. KUBURSI: A. I will be very brief,
2	just only give you two numbers that we need and that's
3	all.
4	Q. All right.
5	A. In 1987 the total production of paper
6	and paperboard was 4.1-million tonnes.
7	Q. These numbers are coming from Mr.
8	Duncanson's evidence?
9	A. But this is the source of this is
0	Canadian Pulp and Paper Association.
1	Q. Yes.
2	A. So 4.1-million tonnes is the total
.3	production, 2.6-million tonnes was the paper/paperboard
.4	consumption in Ontario. These are Ontario figures.
.5	Q. Paperboard.
.6	A. Paper and paperboard they add them
.7	together as paper/paper products. Now, if we assume a
.8	hundred per cent recovery as you're saying
.9	Q. Before we do that, it says for the
20	production of paper it's 4.1 and it says paper and
21	paperboard was two million six.
22	A. No, no, no. The production, both are
23	exactly in same terms. Paper and paperboard production
24	is 4.1 paper and paperboard consumption is 2.6.
25	Q. Oh, All right. Thank you.

1 A. All right. If we assume hundred per 2 cent recovery we get 63 per cent of the total output 3 coming from waste paper and paperboard, I would presume 4 that we can measure the reduction in the demand for 5 virgin pulp in that amount. 6 Q. And is it that analysis that led you 7 in some way to your percentages in your answer of 60 8 per cent? 9 A. I mean, this would lead me to 10 conclude that the percentages we put there are not 11 totally far-fetched, because we are importing about .4

now, even if we have 80 per cent recovery on this,

would put us in the ballpark figure.

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- Q. Dr. Kubursi, do you have any
 particular expertise in the area of mill production or
 the capacity for recycled material or capacity coming
 on stream in Ontario or the amount of actual waste
 paper which is available to provide as furnish in
 Ontario, or are you getting all of your -- making your
 calculations based on an interpretation of data which
 is contained in some of these public documents?
- A. Fortunately I have been involved in a study that we've submitted to the Ministry of Environment in which I was part of a team that estimated the total waste production in Ontario.

1		Q. And waste production means the amount
2	of waste paper	which
3		A. Not only paper, other also products
4	too, wet line	products.
5		Q. All right. And did that study
6	indicate the a	amount of waste which would be of the type
7	that could be	used by mills as furnish for the
8	production of	paper products?
9		A. Yes, because we looked at it as total
.0	waste product.	We also looked at the diversion rates,
.1	we looked at t	the recycling capacity, we considered all
.2	these factors	also.
.3		Q. I think one last question. In the
4	Interrogatory	25(c) you said the question was:
1.5		"What are the economic impacts in the
16		area of the undertaking that lead to
L7		these recycling targets?"
18		And the answer was:
19		"The financial resources have not been
20		available to undertake this analysis of
21		the entire area of the undertaking. The
22		economic impact should be examined during
23		the preparation of individual timber
24		management plans."
25		Now, explain to me for what purpose an

1	analysis of that sort would serve in the context of
2	preparing an individual timber management plan? Why
3	would you be looking at the economic impacts in the
4	area of the undertaking?
5	A. Well, here you must really recognize
6	economic impact has really two components to it.
7	Economic impact has two components, one is in terms of
8	repercussions consequences, the other one is also in
9	terms of forecasting demands, because we would know
10	what sort of demands are likely to emerge in the
11	economy for various products, and this may impinge on
12	the needed timber and roundwood and other aspects.
13	Q. And is the way you see that being
14	used in the context of planning, that sort of
15	forecasting would be used to make sort of an allocation
16	kind of decision as to whether or not, in fact, you
17	even wanted to make the land available for timber as
18	opposed to something else. That's the sort of reason?
19	A. Among many others.
20	Q. All right. Thank you, those are my
21	questions.
22	MADAM CHAIR: Thank you, Mr. Freidin.
23	Mr. O'Leary. Do you have any
24	re-examination?
25	MR. O'LEARY: With a great deal of

1	disappointment I'm sure to Mr. Freidin, we don't have
2	any questions in re-examination, Madam Chair.
3	MR. FREIDIN: Good timing.
4	MADAM CHAIR: Thank you, Mr. O'Leary.
5 _	MR. O'LEARY: Well, I can always stroke
6	out a few.
7	MR. FREIDIN: I tried very hard to do
8	that but I couldn't.
9	MADAM CHAIR: Thank you very much,
10	gentlemen, Dr. Victor and Dr. Kubursi. Good luck in
11	your work and the Board appreciates you coming.
12	DR. KUBURSI: Thank you very much.
13	MR. FREIDIN: I would like to thank you
14	as well. I enjoyed the discussion.
15	MADAM CHAIR: We will see you on Monday
16	at 10:30. Thank you.
17	Whereupon the hearing was adjourned at 3:55 p.m. to be reconvened on Monday, March 2nd, 1992, commencing
18	at 10:30 a.m.
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